Control Panel For Vacuum Impregnation System.

INSTRUCTION MANUAL

Rev 1.0

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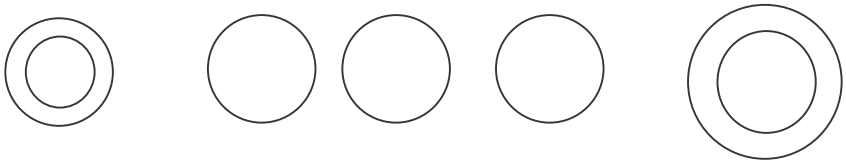
B. Manual Operation of Unit.

Put the Unit in manual Mode by setting the mode switch in Manual operation.

Press Power on Switch to turn on the panel



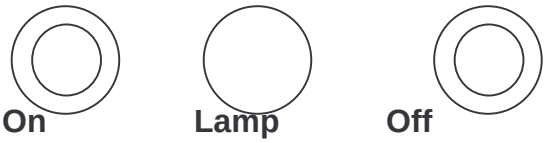
Power On R Y B E- Stop

The R, Y, B Lamps turn on indicating the 3 Phase Power.

Press Emergency Stop (E-Stop) any time to turn off entire panel.

When things go wrong press the EMERGENCY STOP RED.

All the motors and Solenoids are provided with on and off switches.



On Lamp Off

Lamp turning on indicates that that Solenoid or motor Turns on.

Press “on” or “off” button to operate a solenoid or Motor.

1. **Use ram up to open Chamber and Load materials in the Trays or in chamber.**
2. **Use “RAM down” to close the chamber.**

3. Lock the Chamber.
4. Turn On Vacuum pump.
5. Turn On refrigeration pump.
6. Use Stirrer motor as required.
7. Go to auto or manual mode for solenoid operation.
8. At end of process unlock and use RAM up.
9. Unload material.

Motors are provided with overload relays Inside Panel.
Set proper Current limit as required to protect motor.
Proper Connections to Motor is required or else motors can get burnt.
Earthling of Motors and Solenoids are Important to ensure safe and stable operation of entire system.

C. Automatic Operation of Unit.

Set the mode switch to auto position and Power on the panel.

Now turn on the motors and RAM controls as required.

The solenoids alone are sequentially operated in Automatic Operation

Press Auto-Start on Mimic Panel at the top to start auto operation.

To Abort the auto cycle press Auto - End (Reset).

Process Stage indicates the stage of process going on.

The Lamps on the panel indicates activity of sensors and solenoids of the Process.

The Time Display is in Count Down Mode it shows balance time in minutes for that stage to complete.

D. Sequence of Automatic Operation.

Stage	Action	Solenoid	Stop Feedback By
1	Vacuum on	S1	Vacuum Switch / Timer 30 mts
2	Varnish in	S2	Level Sensor / Timer / Bypass.
3	Soak on	-	Timer 50 to 60 mts.
4	Comp Air in	S3	Timer 20 mts, Pressure Switch.
5	Comp Soak	S3	Timer 40 mts.
6	Vent out	S4	Timer 5 mts.
7	Varnish out	S5	Level Sensor / Timer 10 mts
8	End Signal	-	Auto resets Stage Counter.

Press Auto-Start Button on panel.

Blue Flashing lamp turns on at top of equipment and remains on till process is stopped.

The automatic mode follows above sequence and when it reaches process stage 8 auto mode ends turning off Blue lamp and Flashing a red lamp.

During the Stages 4 and 5 when Compressed air enters chamber Buzzer turns on as a warning signal.

When power fails the Unit stops the timer and the display is available because of a backup battery.

When power resumes restart by pressing auto start and unit starts at stage where it power failed but for the entire set time duration.

Master reset is available on the Control Unit Inside the panel.

E. Setting the Timer in Auto Control

An LED indicator Shows that Stage is ON, Thumbwheel is available For Setting Timen minutes. Press + to increase Number Press - to decrease (Do not press both at once !) use carefully to avoid damage of switch.

Battery Backup.

a. Backup is complete and for a period of nearly 2 days.

b. If Unit is Going to be off for more than 3 days Disconnect Battery 5v Point and when restarting connect back 5v Point and Reset small switch in the Control unit.

c. Turning off power for long duration's will spoil the battery power is required at least for 2 hrs every day for battery to sustain.