

# INSTRUCTION MANUAL

## SB-375 Sandblasting Cabinet (240V)



**S300**

The sandblast cabinet is a product with double side doors and featuring an electric-pneumatic control system. With a large tightly enclosed cabinet space, a transparent glass viewing window and a heavy-duty rubber glove, it's easy and safe to operate and is really an ideal environment friendly product for various uses.

This tool comes with two sanding guns, one connected with a fixed flexible metal pipe that can change direction freely and is triggered by a pedal switch; the other, hand-triggered and movable, is attached as an auxiliary gun for user's alternative. With an air pressure range of 60PSI-120PSI to deliver abrasive media, the tool can be use for various surface treatment and decoration purposes, such as removing rust, paint, scale or other foreign build-up form a metal, or making coarse patterns on glass.

## Technical Specifications

1. Overall Dimensions: 100x61x163CM
2. Work Area: 94.5x60.5x60.5CM
3. Air Pressure Range: 60PSI-120PSI
4. Sand Capacity: Approx. 40LB
5. Abrasive Media: Silica sand, Glass beads, Silicon carbide, Emery, Plastic sand, etc.
6. Power Requirement: 110V/60HZ OR 230V/50HZ
7. Output Voltage: 12V

## ASSEMBLY INSTRUCTIONS

1. Remove all parts from inside cabinet including floor grate from bottom of crate, underneath cardboard.
2. Remove all parts from inside cabinet.
3. Place cabinet on its top.
4. Attach legs using four 1/4 x 1/2" bolts.
  - a) Front left leg has name plate.
  - b) Rear legs will also take 2 self tapping screws each.
5. Stand cabinet upright on legs.

6. Place foot pedal between front legs.
7. Attach left and right doors with four nuts.
8. Loosen bolts on door catches and move out to full extent and tighten bolts. Moving them in slightly will tighten door seal.
9. Place glass on top of cabinet.
10. Place light fixture on glass with light switch on right side. Fasten to cabinet with four 1/4x3/4" bolts and flat washers.
11. Dust Collector
  - a) Attach body of dust collector to rear panel (right side) aligning pipe with hole. Use 1/4"x3/4" bolts and flat washers.
  - b) Place top of dust collector (with motor and filter) into top of unit. Do up the 2 catches.
  - c) Remove inlet box that covers the dust collector pipe inside the cabinet and place a bead of caulking around pipe to seal it. Replace inlet box.
12. Tighten all bolts, nuts and screws.
13. Place floor grate with cut out corner to front right of cabinet.  
Bring hoses through opening.
14. Plug dust collector into female plug coming from light. Then plug male cord from light into 115Volt 60HZ supply. Turn on switch on vacuum, the switch on cabinet will turn on light and vacuum or dust collector.
15. Put media into cabinet through floor grate. (approx. 1/4 bag.)

### **Connection of air supply:**

1. Take out the self-locking connector from the inner package. Wrap a sealing tape round the connector thread. Screw it into the thread air inlet hole on the rear side of the electric control box and tighten.

2. Push the coupler of the self-locking connector toward the air inlet hole, the cone-shaped end of the connector will immediately pop out. Fit it into the air hose connecting to the air compressor. Fasten with a clamp. Push the coupler again and fit in the opposite side of the cone-shaped end. Release and the connection is secured.

### **Installation of Fixed Gun:**

1. Remove the suction head from the fixed gun. Fit in an air jet. Re-connect the suction head and tighten. Loosen the M6 screw on the gun side and install the corresponding nozzle. (Orifice size should match the air jet). Tighten the screw.
2. Connect the side branch of the gun with a suction hose. Connect the rear inlet of the gun to the flexible metal pipe in the cabinet. Screw till secured.
3. Connect the other end of the suction hose to corresponding suction pipe.

### **Installation of the Movable Gun:**

1. Connect one end of the high pressure air hose to the air connector on the right side of the electric control box, the other end to the air inlet of the movable gun. Tighten with clamps.
2. Connect one end of the suction hose to the side branch of the movable gun, the other end to the fixed suction pipe.
3. Installation of air jet and nozzle are same as with fixed gun.
4. Put the movable gun on the mesh screen.

### **Operating Instruction**

1. The air jet and the nozzle should match each other in size.
2. Pour abrasive media approx. 40LB into the funnel through the side door of the cabinet.
3. Cover a filter on the flange on the rear side of the cabinet and connect with a dust collector. This can prevent dust from entering the motor and causing damage to the machine.

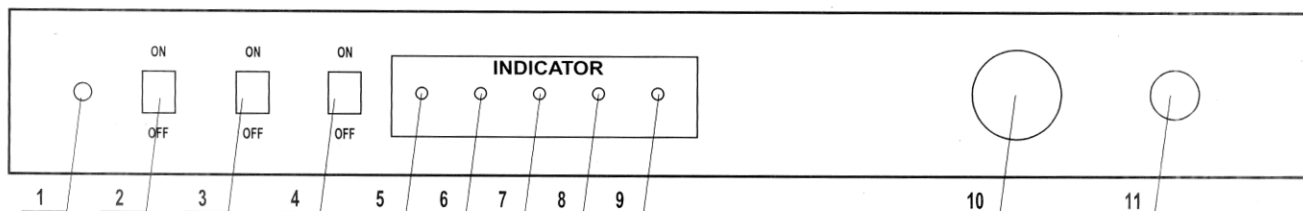
4. When the air pressure from the compressor reaches 60PSI, press the power switch to "ON". The power indicator lights up.
5. This tool comes with two sanding guns. But under control of the electric-pneumatic system, only one of them is available for work at a time. When the movable gun indicator is on, it indicates the movable gun is available for work. While the door-closed indicator is on, step on the pedal switch and the fixed gun will begin to blast immediately. The movable gun indicator goes out at the same time.
6. There is a tester attached inside the door to check whether the door is open or closed. If the door-closed indicator is not on, the control system is in a protecting status and the fixed gun won't work no matter the pedal switch is depressed or released.
7. When the air pressure exceeds 60PSI, user can begin to make a testing blast. Insert hands into the rubber gloves, grasp the workpiece to be blasted, position it under the fixed gun, step on the pedal switch and then the blasting process is started. Or grasp the movable gun, point the nozzle to the workpiece, press the movable gun, point the nozzle to the workpiece, press the trigger and then the gun will begin to work. After a while of time check the blasted surface to see the effect.
8. The abrasive media will drop to the bottom of the funnel after blasting and can be recycled.

NOTE: The high pressure air should be dry and if contains too much moisture, attach a water filter to separate the moisture before air enters into the electric control box.

## **Illumination and Electric-Pneumatic System**

The pneumatic system is controlled by an electric circuit, which is set inside a box on top of the cabinet.

Layout of the front panel of the electric control box



- |                          |                        |
|--------------------------|------------------------|
| 1. Fuse                  | 2. Power switch        |
| 3. Light switch          | 4. Dust Switch         |
| 5. Power Switch          | 6. Control Indicator   |
| 7. Door-Closed Indicator | 8. Fixed Gun indicator |
| 9. Movable Gun Indicator | 10. Air Pressure gauge |
| 11. Air Pressure Valve   |                        |

### Function Descriptions for Controlling and Indicating Parts:

1. Fuse- A safety feature for overload and short circuit protection.
2. Power switch-To connect or disconnect the power source.
3. Light switch-To turn on or turn off the light.
4. Power indicator- If lights up, it indicates the power source is connected.
5. Door-closed indicator- If lights up, it indicates the door is closed and the fixed gun is available for work.
6. Fixed gun indicator- If lights up, it indicates the fixed gun is in blasting.
7. Movable gun indicator- If lights up, it indicates the movable gun is ready for work or is in blasting.
8. Air pressure gauge-To indicates the air pressure for blasting.
9. Air pressure valve- Control the working pressure of the compressed air. If turned clockwise, it increases. If turned counter-clockwise, it decreases.
10. Pedal switch-Control the blasting time of the fixed gun.
11. Electromagnetic valve-Control the shift of air outlet.

### Operating Instruction for the Electric Control Box:

1. Connect the power cord on the rear panel to a grounded power source.

2. Press the power switch to "on", the power indicator will immediately lights up. Otherwise check the power source and the cord and see if the fuse is broken, Should any part be replaced, use one of the same type.
3. Press the light switch to "ON", the light will immediately be on.
4. The door-status tester is a safety featre designed to protect the operator and surrounding environment from the abrasive media. When the door-closed indicator is on, it indicates the door is closed securely and the fixed gun is available for work under control of the pedal switch.
5. If the control system breaks down or if there is any malfunction, have it repaired by a qualified technician.

## **How to control the blasting effect**

1. Choose a nozzle and an air jet of suitable size according to the desired grade of fineness or coarseness of the surface of workpiece.
2. Use a suitable grade of abrasive. And because it wears during the blasting process, a double layer of ordinary window screen is recommended to strain the abrasive after some time of use.
3. When blasting, move the gun or workpiece evenly and circularly.
4. The air pressure should be stable when blasting.
5. Ensure a good illumination to have a clear view of the cabinet space.

## **Maintenance**

1. The air hoses should not be blocked, twisted, or crushed by force.
2. Abrasive particles may work its way into the door liner. Use a soft brush to clean up after some time of use.
3. If visibility of the cabinet space is reduced, replace the protecting film sticked on the organic glass.
4. When blasting is finished, clean the passage from air jet to the nozzle. Make sure there is no abrasive media left.

## Troubleshooting

Problem	Cause	Remedy
Abrasive flow decreasing	Abrasive build-up in the nozzle	<ol style="list-style-type: none"> <li>1. Wet abrasive, have it dried</li> <li>2. Drain water from the air compressor.</li> </ol>
The blasted surface not as coarse or as fine as desired	Wrong grade of the abrasive media	Replace abrasive media of right grade
Uneven blasting	Abrasive media worn	Strain or replace the abrasive media
Light failure	<ol style="list-style-type: none"> <li>1. The transformer damaged.</li> <li>2. The light damaged</li> <li>3. Bad contact</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace the transformer</li> <li>2. Replace the light</li> <li>3. Have it repaired by a qualified technician</li> </ol>
Dust leakage	<ol style="list-style-type: none"> <li>1. The viewing window not sealed properly</li> <li>2. The door not sealed properly</li> <li>3. The funnel not sealed properly</li> </ol>	Replace the corresponding foam sealing strip





# CIRCUIT DIAGRAM

