

# GENERAL INSTRUCTIONS

## Deluxe Micro-Suction Cabinet – Model 2100 (2102246)

Our Model 2100 Cabinet (Fig.1) comes completely assembled and ready to operate. All that is required is an abrasive media suitable for the job and a dry, clean, and oil-free compressed air supply of 6 CFM at 100 psi.

The choice of which medium to use will depend upon the work to be performed and will vary from glass beads for peening, to an aluminum oxide for cutting and abrading.

If the medium is aluminum oxide, feed will be adequate until the level falls below 3” from the reservoir bottom.

With the recycling pencil, there must be at least 2 pounds of medium in the cone chamber for it to function.

### AIR SUPPLY

The micro-suction cabinet requires an air supply delivering a minimum of 6 CFM.

As the system is rarely used on a constant basis, you can generally operate it from a compressor that delivers less than 6 CFM, provided that the compressor is rated at a minimum of 1 hp.

For the smaller lab, using the system in short cycles, a compressor delivering as little as 2 CFM may suffice if it has a moderately large air storage tank. This should allow it to build up sufficient air reserve whenever the foot control is not activated to enable the system to run in 10 to 15 second cycles. If you expect to use your unit more frequently, consider having a compressor that will deliver the 6 CFM requirement.

An important consideration is an ‘In-Line Air Filter’ for the compressor, as any compressor will pick up moisture, dirt, and oil contamination as it operates. An air filter will prevent the inclusion of these deleterious elements into your unit. Moisture or oil will cause clogging of the unit.

### AIR PRESSURE

The most efficient working air pressure ranges from 75 psi to 125 psi. While each unit has been factory tested, continual usage at pressures exceeding 125 psi is neither warranted nor recommended, since little additional efficiency can or will be attained by excessive pressures. Conversely, a low pressure setting can result in reduced abrading, peening, or polishing efficiency along with reduced suction efficiency.

#### SUGGESTED INITIAL AIR PRESSURE SETTINGS

Aluminum Oxide (50 microns) 75 psi to 100 psi  
Glass Beads (100 microns) 40 psi (For porcelain veneers only)

### FILTER REGULATOR WITH GAUGE

The filter regulator supplied with the unit includes instructions from the manufacturer. Read the precaution and maintenance instructions carefully. The filter regulator on the Model 2100 can be accessed from the underside of the cabinet. (Fig. 2 & 3)



Fig. 1



Fig. 2



Fig. 3



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# Deluxe Micro-Suction Cabinet, cont'd

## “MEDIUM” PRECAUTIONS

The Model-2100 is designed to operate optimally with free-flowing dry medium, either an abrasive (aluminum oxide) or polishing (glass beads). The importance of using only clean, dry medium cannot be over-emphasized. Even the slightest dampness in the medium can cause caking and jamming which can plug the pick-up lance causing it to become inoperative. (Should this problem occur, see ‘Feed Difficulties’ for corrective action.) The importance of an “In-Line Air Filter” is critical to the operation of the units.

## FLOW VALVES

The Model-2100 has two ‘flow valves’, one for the recycling hand-piece and another for the non-recycling hand piece.

The brass thumbscrew at the valve, controls the flow of the medium. (Fig. 4)

To adjust:

- Clockwise – Maximum Flow
- Counter-Clockwise – Minimum Flow



Fig. 4

## MICRO-PENCIL TIPS

Tips on the Micro-Pencils should be inspected for wear frequently. Replacement of the ceramic tips recommended after



every 50 pounds of oxide media consumption or at least before the ceramic tip wears through to the brass body. Use this chart as an indicator of wear

NEW                      GOOD                      REPLACE                      DO NOT USE

## Setup of the Micro-Suction Cabinet, Model 2100

1. Plug in the electric line cord from the cabinet light.
2. Connect the “In” port on the foot control to your air supply, using no smaller than a 1/4” inner diameter hose. Set the air supply initially to deliver 100 psi.
3. Add abrasive (about 2 pounds) for the recycling hand-piece by pouring the abrasive through the screen inside the cabinet. The abrasive for this hand-piece is controlled with the flow control valve on the front of the cabinet. The flow is controlled by rotating the flow control valve clockwise to increase the abrasive flow, counterclockwise to decrease the abrasive flow. The flow control valve should never be closed tightly.
4. Add abrasive for the non-recycling hand-piece by removing the virgin media cover (red cap) and filling the reservoir.

The flow control valve for this hand-piece is located next to the media cover.

5. Selection of the recycling or non-recycling hand-piece is accomplished with the selector switch on the right side of the cabinet. Flip the switch up for new abrasive and down for recycled abrasive.

6. The cutting pressure is controlled with the black knob on the filter regulator. Pull the knob up, and then turn clockwise to increase the cutting pressure, counterclockwise to decrease the cutting action.

## MAINTENANCE

The exhaust filter should be cleaned regularly and the filter chamber emptied as required. You may do this as follows:

Disengage the two rubber hinge latches on either side of the filter cover. Lift off the filter cover. Remove the exhaust filter and tap lightly on the rubber side of the filter. (THE OTHER SIDE OF THE FILTER IS PAPER



Fig. 5

AND CAN BE DAMAGED IF YOU TAP THAT SIDE!) (Fig. 5) Empty the filter chamber by removing the spout plug located underneath the cabinet (Fig. 6), while positioned over a suitable trash receptacle.

Empty the recycling chamber as needed by completing the following:

Place a waste container under the nose cone spout plug and release the spout plug.

Note: You must refill the chamber for the recycling hand-piece (Fig.6) to function (approximately 2 pounds).

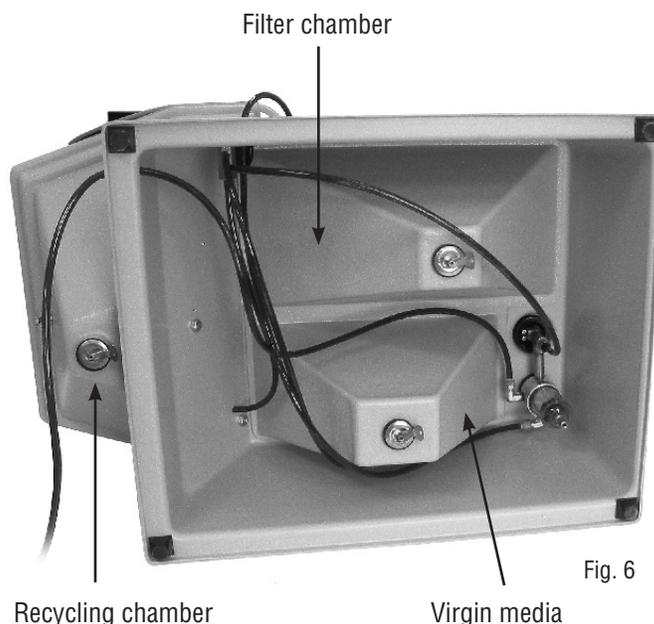


Fig. 6



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## TROUBLESHOOTING CHART

PROBLEM	CAUSE	CORRECTION
<p><b>PULSATION</b> Gun has a pulsating or throbbing feel. Oxide feed varies from heavy to almost none.</p>	<p>Flow valve is shut too tightly.</p>	<p>Turn the valve screw counter-clockwise.</p> <p>Inspect the oxide medium to insure that it is clean and dry. Replace it if necessary.</p>
<p><b>COMPLETE FEED STOPPAGE</b> Air flow from the nozzle is set at full flow.</p>	<p>Nozzle is plugged.</p> <p>Holes in the feed are plugged with oversize medium or foreign matter.</p> <p>Medium level is too low.</p>	<p>Close the nozzle momentarily with a finger in order to “blowback” oxide, (Also see: <b>PULSATION</b>).</p> <p>Remove the lid from the Canister in order to clear the pickup openings. Sift the medium or replace it with new medium.</p> <p>Canister must have at least 3” of medium at all times.</p>
<p><b>WEAK OR LACK OF AIR FLOW FROM THE NOZZLE</b></p>	<p>Jammed air-jet.</p>	<p>Try to clear it with a fine wire (.010 maximum gauge).</p> <p>Close the nozzle momentarily with a finger in order to “blowback” oxide.</p>

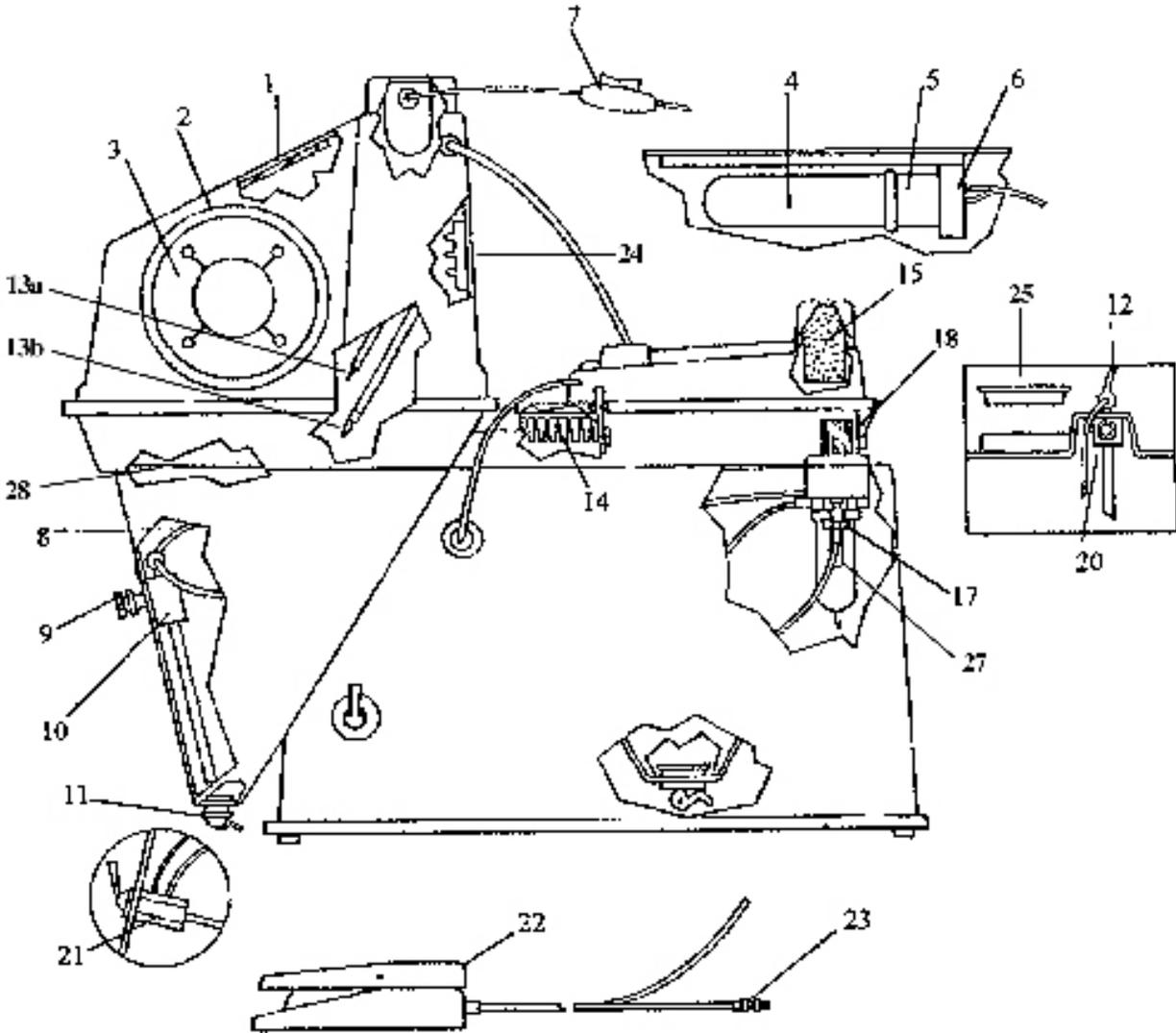


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## DELUXE MICROSUCTION CABINET – MODEL 2100 (2102246)



1. Safety Glass – Model 2100	7101519	14. Exhaust Filter – Model 2100	7102261
2. Rubber 'O' Rings	7101526	15. Vacuum Silencer – Model 2100	7102262
3. Cuffs	7102141	16. Pressure Gauge	7102120
4. Light Bulb	7101528	17. Filter Regulator w/o Gauge	7102124
5. Light Socket w/ Lamp Bracket Assy.	7101529	18. Rubber Hinge Latch	7102259
6. Light Bracket (sold with socket)		20. Non-Recycling P/U Assy. – Model 2100	7102219
7. Light Cord w/ Switch	7101532	21. Recycling Switch	7102255
8. Recycling Gun Body	7102213	22. Foot Control Assy.	7102127
9. Flow Control Ftg Comp.	7102111	23. Air Supply Ftg.	7102249
10. Recycling Lance Assy.	7102218	24. Handpiece Clip	7102263
11. Spout Plug	7102265	25. Virgin Media Cover	7102264
12. Non-Recycling Gun Body	7102136	26. Diaphragm Assy.	7102138
13a. Ceramic Tip	7102010	27. Filter Cartridge	7102139
13b. Carbide Tip	7102251	28. Cabinet Screen – Model 2100	7102266



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