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## OPERATION MANUAL & PARTS LIST FOR THE E100 Abrasive Finishing Blast Cabinet

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**WARNING:** This blast unit will produce a powerful flow of abrasive particles. To avoid personal injury and property damage, read the manual thoroughly before assembling, operating or servicing the unit. Use the unit in a controlled area where the expelled media and dust particles will not contaminate the atmosphere to be breathed or cause damage to the surroundings.

**Failure to follow these instructions could result in operator injury as well as void the warranty on the blasting system.**

Your TF1000 blast cabinet system is designed to clean, polish, and finish with dry abrasives **ONLY**, such as glass bead or plastic granule abrasives. The finishes can vary from course to fine according to the sizing of the glass bead. On delicate parts, start out with minimal air pressure to avoid unnecessary peening or undesired excessive abrasion.

**DON'TS** Your blast system is not designed to work with harsh abrasives such as aluminum oxide, blasting garnet or sand. Never use fluids of any kind or mix fluids with a media in this blast system. Do not operate the unit with the air safety valve and the lid open. Severe injury to skin and eyes may result from exposure to operating equipment. Do not use over 70 watt light bulb.

**DO'S** Your blasting system is equipped with a 3-prong grounded plug for protection against shock. When connecting your unit, obey all applicable electrical and safety codes including the National Electric Code (NEC) and the Occupational Safety and Health Act (OSHA). The blasting system should be plugged into an adequately grounded 3-prong receptacle. If only a 2-prong receptacle is available, have it replaced with a proper receptacle that meets the national and local codes or ordinances. Only a qualified electrician should perform this work. A grounded adapter can be used. Make sure the green lead from the adapter is properly attached to a suitable electric ground.

**NOTE:** The Canadian Electrical code prohibits the use of 3-prong adapters. **Abrasive media is very slippery and should be cleaned up immediately to avoid possible operator injury.**

\* Use of silica sand is not suggested due to the silicosis hazard.

## Setting Up Your Blasting System

1. Place the blast cabinet near a 115v/60Hz AC electrical outlet. Make sure the receptacle will accept the 3-prong plug so that the unit will be properly grounded. Also check to make sure the power source is adequate for use with this blast system. An electrician should be consulted if the proper outlet is not available or if the user in any way questions the condition of the electrical circuit.
2. Attach the air supply line from a compressor capable of maintaining 5 cfm at 80 psi to the inlet connection of the lid safety valve assembly found on the left side of the cabinet. Because of variation in air supply systems, the air inlet coupling is not provided. Use the particular fitting that is compatible with your air supply system. **DO NOT OPERATE THE BLASTING SYSTEM OVER 100 PSI.**
3. Check the supply air line fittings and hose attachments to the rear of the trigger gun. Also make sure the media supply hose is attached tightly on the nipple on the underside of the trigger gun.
4. Place no more than 10 pounds of abrasive media into the center of the hopper but do not cover the very top of the pickup tube where the rubber hose is attached. Excessive amounts will create clouded cabinet conditions, blow-by of media through the exhaust, or sluggish and ineffective blasting performance.
5. With the air supply connected, all fittings and joints not leaking, and the unit plugged in you are ready to test the blasting system.

### ***Now follow these steps for start-up operation.***

- a. Place the part in the cabinet. Turn the air safety valve handle so that it is over the window preventing it from being lifted. Always close lid latches prior to blasting. Severe injury to the skin and eyes may result from exposure to the blast stream.
- b. After inserting your hands into the gloves, grasp the gun and depress the trigger. This should begin the blasting flow.
- c. Now you may begin finishing the part. You should move the blast stream continuously over the part in an even circular motion. The flow should not be too hard or concentrated to avoid undesirable peening.

## MAINTENANCE:

### **NOTE: Disconnect power and air before performing any maintenance.**

All blasting systems are prone to plugging up or wear because of the abrasive material used and the applications. The following items should be checked as indicated.

**PLUGGED CONDITIONS** - The blast nozzle may become plugged with moist or too coarse of media. Cover the end of the nozzle with your gloved finger and operate the gun. If the pickup tube appears to be clogged with media this same procedure should be followed. You may need to get rid of the moist media.

**WEAR CONDITIONS** - This is evident when an excessive amount of dust is present in the cabinet. Dust will occur if:

1. The abrasive media is worn out. This is usually noticed when the abrasive media that exits the nozzle looks like a smoke cloud instead of a stream.
2. The air outlet vent is plugged or airflow out is blocked. Cleaning this vent should help reduce the dust in the cabinet.
3. The gun parts do wear with use. This is evident when the blast pattern is too wide and ineffective. Replace the orifice and nozzle by loosening the set screws on the gun assembly and disassembling. Note the location and condition of the "o" rings on the orifice. Proper installation is important.
4. The mylar shields on the bottom side of the lid may become cloudy or scratched after many uses. This may be peeled off and another shield installed. We do not recommend using the system without this shield as the lid will scratch from the abrasive easily. If you need to replace any of the items for this system, please refer to the parts list included with this manual and call your local dealer.

## TROUBLESHOOTING GUIDE

| Problem                   | Remedy   |
|---------------------------|--|
| Excessive dust in cabinet | Empty the dust collector and shake out filter bag<br>Replace worn out abrasive media<br>Too much media in cabinet. Remove excess<br>Check for loose air line fitting in the cabinet. |
| Uneven blasting action    | Too much media in cabinet. Remove excess<br>Moisture present in air system. Install trap<br>End of abrasive hose covered with too much media   |
| Poor blasting             | Replace worn out abrasive media<br>Replace worn gun parts<br>Pressure to the system is too low   |
| Static electricity        | Leave the item being cleaned on the grating  |

# Cyclone MANUFACTURING WARRANTY

This blasting system is warranted against defects in workmanship of materials in accord with the following terms and conditions:

1. Warranty extends to the original user only and doesn't cover cabinets used in commercial rentals.
2. Warranty is valid for a period of one year following date of purchase.
3. Warranty does not cover maintenance items subject to normal wear such as: nozzles, orifices, mylar shields or blasting media.
4. Warranty does not cover misuse or operation not in compliance with these instructions.
5. Warranty does not apply to damage in transit. In case of such damage, proper claims should be filed.

User should call the factory in the event of defective parts. The parts will be repaired or replaced at the manufacturer's discretion. This warranty grants the user certain legal rights. Users and purchasers may also be protected by other rights which vary from state to state.

**NOTE:** Except for warranties set forth above, the manufacturer makes no other warranties of any kind, expressed or implied, including warranties of merchantability or fitness of a product for a particular purpose.

## REPLACEMENT PARTS AND ACCESSORIES LIST

