

SET UP SHEET FOR THE CrystalBlast Master

The standard nozzle size for the CrystalBlast Sandcarving line of equipment is 3/32" using 6 cfm @ 35 psi blasting pressure. This will produce the finest film detail using 180 mesh abrasive with the proper film thickness.

If the machine will be used with the larger 1/8" nozzle less blasting pressure will be required to maintain the same film detail. The larger the nozzle, worn out 3/32" is larger, the more abrasive is delivered and the more often you cycle the dust collector cleaning cycle.

The CrystalBlast Master has the pneumatic conveyor allowing longer machine use and aerated fine abrasive flow. It also includes the larger 1100 cfm blower and larger 440 sq.ft. dust collector standard. Other options may include automatic timed cleaning, super silencer and HEPA After Filtration for increased dust collector efficiency and larger nozzle operation.



Please read this sheet before operation of the machine. This single sheet will help you to understand proper setup for the machine and any special items making sure the machine operates properly. Use the machine manual for proper adjustment, operation and service of the machine.

After the machine shipping crate has been removed and the machine has been placed in its user location, you can use the leg pads to anchor the machine in its final location, this is not required. You can remove any unpainted leg braces used for shipment at this time.

Make sure you have enough compressed air volume for the blasting pressure you will be using. The 3/32" nozzle inside the CB consumes 7 cfm @ 40 psi blasting pressure. Media Blast advises doubling this volume of compressed air to allow for nozzle wear that demands more compressed air volume. Look for a compressor indicating at least 14 cfm delivery at 90-100 psi. Never use the displacement cfm listed on the compressor, this number has zero pressure inside the tank and you will quickly see the number at 90 to 100 psi is less. Unless you maintain 90-100 psi it is possible the machine air controls will not function properly for the vibrator cleaning cycle.

1. Install an ambient dryer on the machine air inlet or wall if the machine will be use more than one hour per day and the facility air is not cool and dry. The CrystalBlast Master is designed to be a 75% machine duty cycle using the standard 3/32" sandcarving nozzle. Using a larger nozzle will require cleaning the dust collector more often and produce less part detail. The 75% duty cycle relates to about 6 hours of sandcarving per day. Larger nozzle size shortens the suggested machine duty cycle but optional automatic cleaning features can increase the daily duty cycle.
2. Make sure to check any hard line air compressor supply lines for restrictions in the form of undersized plumbing fitting, tee fittings or small undersized air controls that might be located on the compressor.
3. Insure the air is cool, dry and moisture free. If the compressor is marginal in cfm volume or close to the cabinet, the air will transfer into the cabinet hot passing through the air filter/regulator and moisture will be created inside the cabinet, abrasive will then stop flowing. A larger compressor volume equals cooler compressed air and a longer lasting air compressor. 16 to 18 cfm is a good match for the CB Master machine unless using larger than the standard 3/32" nozzle size.
4. The CB Master does not include a main air shut-off valve before the air inlet into the machine; It is advised you install a lockable master air shut off valve on the air inlet of the machine. This permits air lockout machine maintenance in the future.
5. Make sure the line pressure into the CB Master does not exceed 125 psi. It is possible to damage some controls with excessive line pressure.
6. All blasting cabinets require a negative pressure inside the cabinet. The CB Master uses 440 sq.ft. of filter cartridges, cyclone reclaimers good for 220 mesh and larger operation and a 1100 cfm Radial Pressure Blower with a running cfm of 550 to 600.
7. The compressed air supply line for the CB Master should be 1/2" ID hose final connection using hose barb fittings. Never use 1/4" yellow spiral hose or quick disconnect fittings on a machine with pneumatic vibrator cleaning cycle.
8. The CB Master has high voltage single power source electrical. It has been wired to customer specification and requires hardwire installation. Check the serial number tag for proper machine voltage, **always check blower rotation after installation.**
9. Keeping the dust collector clean is key to proper operation of the machine. If you are using a larger nozzle size (1/8") it will delivery twice as much abrasive in pounds per minute as the standard 3/32" nozzle. This means you want to clean the dust collector more often, twice as often, to maintain proper airflow. Exceeding the machine daily duty cycle and increasing the daily cleaning cycles can increase the machine daily duty cycle.