On the above date, a programming and planning meeting were held at the Dover Area School District Administrative Offices to review the interior room layouts for the Dover Area High School project. Pertinent issues and items of discussion are as follows.

**STUDENT RUN BANK**
1. Member’s First indicated the safe shall be located in the storage room.
2. Member’s First indicated they would prefer the transaction counter be re-oriented to face the corridor.
3. Transaction counter will have (2) computers, (1) printer, and teller and banking equipment (Diebold); which will all be provided by Member’s First.
4. Revise tack board to a marker board.
5. Incorporate rough in requirements for ATM machine should it be feasible to provide one. It will be located in the side corridor due to the location of the building fire wall.
6. IT rack will be located in the storage room.
7. Provide card access on main bank doors with electromagnetic hold opens tied to the building fire alarm system.
8. Member’s First to provide cut sheets for the banking equipment, ATM, and safe.
9. POST MEETING NOTE: CRA has updated the plans & emailed them to Member’s First to review.

**SCHOOL STORE**
1. Provide one point of sale station. Relocate to plan northwest corner.
2. Relocate tall open storage from plan west wall to plan northeast.
3. Provide horizontal security gate at portion of south wall and relocate door to plan east wall.
4. Add slat-wall to storage room wall.
5. Layout was approved with the above comments.

**CONCESSIONS**
1. Provide two cashier stations in the indoor concessions room.
2. Ice makers shall be by the GC.
3. Layout was approved with the above comments.

**TICKET BOOTH**
1. The safe will be located within the administrative secure storage room. Provide a night drop from the corridor.
2. Layout was approved with the above comment.

**TV STUDIO**
1. Provide 1 high (below grid) and 1 low (under counter) through wall 4” conduit penetration from the Studio to the Control Room.
2. AV system (cameras, sound system, control panels, etc.) to be by DASD. DASD requested they be integrated into the building wide AV system (Data over IP).
3. GC to provide lighting system.
4. Add window from Studio to Graphics Classroom.
5. Flip door from Studio to control room to other side of room.
6. Provide blackout shades on all TV studio and control room windows.
7. Provide floor box with power at anchor desk in studio.
8. Provide high wall box opposite side of anchor desk for wall mounted display (anchor monitor) in studio.
9. The following curtains will be provided: Chroma Key Green, Black Velour, and 60% Reflectance Grey.
10. Photography backdrops to be provided by DASD.
11. Flooring to be VCT.
12. Provide locks on tall storage units in the Control Room.
13. Layout was approved with the above comments.

GRAPHICS CLASSROOM
1. Provide floor box with power/data for teacher station.
2. Switch tack board to marker board.
3. Add mobile interactive display unit.
4. Expand window to lab.
5. Flooring to be carpet.
6. Provide lighting controls at front and back of space near Control Room
7. Provide three lighting zones.
8. Add wall cabinets to corridor wall.
9. Provide floor boxes with power located towards the center of the room and by the resource table.
10. Flip the location of the teacher wardrobe and entry door.
11. Layout was approved with the above comments.

GRAPHICS LAB
1. Provide two windows into the Lab from corridor.
2. Provide vibration isolation pad for the offset press. Pad to be 6” wider than size of press and include stand.
3. Provide exhaust over the offset press.
4. Hand sink to have faucet with automatic sensor controls.
5. Provide tack strips for display outside of the Lab.
6. Provide resinous floor and base.
7. Relocate emergency eye wash station adjacent to the washout sink.
8. Provide a floor drain at the washout screen cleaning area & at the hydro drip tank.
9. DASD indicated the following pieces of equipment are existing:
   a. Hydro-drip tank
   b. Rinse tank
   c. Flexography Exposure unit
   d. Screen Exposure unit
   e. Heat Press
   f. Spot Gun Station
   g. Automatic Press
   h. 6-Color Manual Press
10. DASD indicated there will only be (1) mobile conveyor dryer that requires 220v power cord reel.
11. Vinyl transfer station shall be located on the table adjacent to the laminator.
12. Create punched openings in wall around screen exposure stations, along the wall shall be countertop @ 36"h with a few 2-door base cabinets and the rest as open for mobile tool cabinets. Provide wall cabinets above where possible.

13. Layout was approved with the above comments.

**AGRICULTURAL MECHANICS LAB**

1. Separate dust collector (from Wood Manufacturing) to be provided.
2. Plan for 3-port dust collection point for connection of mobile equipment, floor sweep, and connection of panel saw. It was noted that the panel saw is not as large as it appears in the model.
3. Provide hose bib inside of exterior door.
4. None of the labs will include floor drains. Overhead doors to include a detail with a lip to prevent rainwater from entering.
5. Spray booths to be by the Mechanical Contractor.
6. Plumbing contractor to provide a regulator with dryer at all compressed air locations (typical for all spaces with compressed air).
7. Provide the following types of welding stations – (1) 48” grate, (1) 36” stone, (1) 36” half stone half grate.
8. Welding shall include (1) oxyacetylene, (1) acetylene fixed & (1) oxyacetylene, (1) acetylene shall be on a cart. Cart shall be provided by DASD. All tanks are K-Size.
9. Layout was approved with the above comments.

**METAL MANUFACTURING LAB**

1. Welding tables to be provided by the GC, exhaust systems by the HC.
2. Accommodate the following gas bottles: (2) K-size Oxygens, (2) K-Size Acetylene. Manifold each together and provide valve for changing of empty container while other container is in use. Provide valve and regulator inside of each Lab for incoming gas. Provide additional valve and regulator at each welding station. All of the gas piping to be by the PC.
3. 4-person gas welding stations to be relocated from the existing Agricultural Mechanics Lab by the GC. Hoods to be relocated by the Mechanical Contractor. Gas connections to be by the plumbing contractor.
4. Plasma cutter shall require exhaust hood.
5. Add welding stations at the plan south wall.
6. Layout was approved with the above comments.

**GREENHOUSE**

1. Flood tables are preferred. CRA to revise the layout based on ADA clearance. May need to combine tables if more cost effective.
2. Hydroponics system provided by DASD. Requires GFCI receptacle for small pump. Will be filled from hose and adjacent hose bib.
3. The door from the head house to the yard can be eliminated.
4. Head house counters to be solid phenolic with storage underneath and wall cabinets above.
5. Provide exterior ladder to roof for future roof garden.
6. Provide 3 hose bibs on each side of the greenhouse.
7. Provide a structure the length of the greenhouse to hang baskets.
8. Parking lot lights adjacent to greenhouse to be on separate group in control system.
9. Layout was approved with the above comments.
ART
1. Add a flammable storage.
2. Revise tall storage at plan southwest corner in A160 to (2) dry storage units. Note, these units are wider and will require the storage wall to be reconfigured.
3. Revise tall storage at plan southeast corner in A160 to (2) damp storage units. Note, these units are wider and will require the storage wall to be reconfigured.
4. Eliminate wood shelving & brackets at plan east wall & add mobile clay storage which will be purchased by DASD.
5. In A158 Kiln revise tall open storage cabinets & mobile clay storage to industrial metal shelving which will be purchased by DASD.
6. Add clay extruder to be wall mounted adjacent to the door in to the Storage Room.
7. Revise poster storage in A156 from open paper storage to match 5-drawer paper storage located in the Storage Room with open wall cabinets above.
8. Layouts were approved with the above comments.

CNC & CADD LAB
1. Layout was approved as presented.

GENERAL
1. The outstanding list of DASD items was reviewed and the following items discussed:
   a. Plan for a mobile metal detector located in the vestibule adjacent to the single door. Provide 110/220V power outlet.
   b. CCTV vendor will be Business Information Group (Mimaki Cameras).
   c. DASD will located the temporary softball field at Dover ES during construction.
2. DASD does not require a construction trailer.
3. Locate LCD displays in the cafeteria 6’-0" AFF to bottom of display. Displays to be 90”.
4. The classrooms where PDE approved CTC programs being taught were reviewed.
5. Provide tool storage configuration for Metal Manufacturing & Wood Manufacturing labs.

Respectfully submitted,
CRABTREE, ROHRBAUGH & ASSOCIATES

Scott Cousin
Project Manager

cc: Core Group
## DOVER AREA HIGH SCHOOL

### PROGRAMMING AND PLANNING MEETING

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Email</th>
<th>Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracy Krum</td>
<td>Superintendent</td>
<td><a href="mailto:tkrum@doversd.org">tkrum@doversd.org</a></td>
<td>C</td>
</tr>
<tr>
<td>Jennifer Benko</td>
<td>Business Manager</td>
<td><a href="mailto:jbenko@doversd.org">jbenko@doversd.org</a></td>
<td></td>
</tr>
<tr>
<td>Brad Perkins</td>
<td>Communications</td>
<td><a href="mailto:bperkins@doversd.org">bperkins@doversd.org</a></td>
<td></td>
</tr>
<tr>
<td>Dave Nelson</td>
<td>Facilities/Safety</td>
<td><a href="mailto:dnelson@doversd.org">dnelson@doversd.org</a></td>
<td></td>
</tr>
<tr>
<td>Kathy Guyer</td>
<td>Director of Special Education</td>
<td><a href="mailto:kguyer@doversd.org">kguyer@doversd.org</a></td>
<td></td>
</tr>
<tr>
<td>Chuck Benton</td>
<td>Director of Career &amp; Tech Education</td>
<td><a href="mailto:cbenton@doversd.org">cbenton@doversd.org</a></td>
<td></td>
</tr>
<tr>
<td>Jared Wastler</td>
<td>HS Principal</td>
<td><a href="mailto:jwastler@doversd.org">jwastler@doversd.org</a></td>
<td></td>
</tr>
<tr>
<td>Victoria Gross</td>
<td>IS Principal</td>
<td><a href="mailto:vgross@doversd.org">vgross@doversd.org</a></td>
<td></td>
</tr>
<tr>
<td>Drew Becker</td>
<td>Teacher – History</td>
<td><a href="mailto:abecker@doversd.org">abecker@doversd.org</a></td>
<td></td>
</tr>
<tr>
<td>Lauren Craig</td>
<td>Teacher – Gym/Health</td>
<td><a href="mailto:lcraig@doversd.org">lcraig@doversd.org</a></td>
<td></td>
</tr>
<tr>
<td>Samantha Helwig</td>
<td>Library Media Specialist</td>
<td><a href="mailto:spatton@doversd.org">spatton@doversd.org</a></td>
<td></td>
</tr>
<tr>
<td>Barb Lomenzo</td>
<td>Teacher - English</td>
<td><a href="mailto:blomenzo@doversd.org">blomenzo@doversd.org</a></td>
<td></td>
</tr>
<tr>
<td>Amanda Oswalt</td>
<td>Teacher - Life Skills</td>
<td><a href="mailto:aoswalt@doversd.org">aoswalt@doversd.org</a></td>
<td></td>
</tr>
<tr>
<td>Sam Roberts</td>
<td>Teacher - Choral/Music</td>
<td><a href="mailto:sroberts@doversd.org">sroberts@doversd.org</a></td>
<td></td>
</tr>
<tr>
<td>Tara Focht</td>
<td>Guidance</td>
<td><a href="mailto:tfocht@doversd.org">tfocht@doversd.org</a></td>
<td></td>
</tr>
<tr>
<td>Matt Spahr</td>
<td>Teacher - Chemistry</td>
<td><a href="mailto:mspahr@doversd.org">mspahr@doversd.org</a></td>
<td></td>
</tr>
<tr>
<td>Nolan Smith</td>
<td>Teacher - Wood Shop/Engineering</td>
<td><a href="mailto:nsmith@doversd.org">nsmith@doversd.org</a></td>
<td></td>
</tr>
<tr>
<td>Scott Cousin</td>
<td>CRA - Project Manager</td>
<td><a href="mailto:scousin@cra-architects.com">scousin@cra-architects.com</a></td>
<td></td>
</tr>
<tr>
<td>John Beddia</td>
<td>CRA - Director of Operations</td>
<td><a href="mailto:JBeddia@cra-architects.com">JBeddia@cra-architects.com</a></td>
<td></td>
</tr>
<tr>
<td>Rob Pillar</td>
<td>CRA - Director of Educational Arch.</td>
<td><a href="mailto:rpillar@cra-architects.com">rpillar@cra-architects.com</a></td>
<td></td>
</tr>
</tbody>
</table>

**Other Notes:**
- Branch Manager: mst fink@members/st.org
- Moore Eng. Co.
- Members 1st (phone)
- Business Teacher
- AP
- Tim Smith
Overhead sprinkler system
Retractable shade (aerial)
Need numerous H2O sources for hoses
Swamp Cooler = equivalent
Heaters
Overhead Lighting
Need numerous GFCI;
CLAM PRESS

Operator’s Manual

Heat Transfer Equipment
Operating Instructions

CLAM PRESS

The Operating Instructions are designed with you in mind. Carefully read and follow the step-by-step instructions for best results. If you experience any difficulty, carefully re-read the instructions and try again.

Step 1

CONNECT THE POWER CORD:
Connect the power cord into a properly grounded electrical outlet with a sufficient amperage rating.

120 Volt
Your CLAM PRESS requires a full 15 amp grounded circuit for 120 volt operation.

240 Volt
Your CLAM PRESS requires a full 7.5 amp grounded circuit for 240 volt operation.

Extension Cords, if used, should be as short as possible and not less than 12 gauge. Heavy duty cords are recommended.

Circuits that have under 15 amps or other high demand equipment or appliances (especially more than one heat seal machine) should not be used.

NOTE:
If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid hazard.

CAUTION

FAILURE TO FOLLOW THESE INSTRUCTIONS WILL CAUSE:

1. Erratic controller functions.
2. Inaccurate displays and slow heat-up.
3. The circuit breaker to disengage.
EXHAUSTEX 1500

Congratulations, you have just purchased one of the finest spot cleaning exhaust stations available today. It is manufactured in the USA using the best available materials and parts, to TEKMAR’s high quality Standards. When used as directed it should provide years of trouble free service.

PARTS LIST

1  EXHAUSTEX 1500
4  8-32 x 3/8” Screws
1  8 ft Exhaust Hose & Clamp
1  Power Lead
1  Spray Gun Adapter Lead - US Models Only
1  Spray Gun Adapter Plug - non US Models Only

INSTALLATION AND SET UP

The EXHAUSTEX 1500 comes fully assembled except for the attachment of the cleaning arm. Remove the unit from the box and place on work surface. Keep the packaging in case the unit ever needs to be returned for service. The arm is installed using the 4 x # 8 screws. Attach the supplied hose to the rear round exhaust duct using the hose clamp provided.

Plug the power cord end into the EXT1500 power inlet. The other end should be plugged into a grounded receptacle. International 230v units will require an appropriate plug to be installed on the bare wire ends. The Spray gun adapter can be used with any US style plug (always check that gun electrical requirements match the EXT1500 and local voltage) 230v models are supplied with an adapter plug that can be wired onto the spray gun. Please note that the EXT1500 does not have a transformer. The supply voltage will flow through to the spray gun convenience outlet.

SAFE OPERATING INSTRUCTIONS

This unit is an industrial piece of equipment not intended for domestic use. It’s design incorporates a high power blower unit that could cause injury if modified or mis-used.

Never spray flammable solutions through unit.
Only operate the unit with exhaust hose attached.
Always check electric cord for damage prior to use.
Disconnect power before servicing unit.
Use only authorized replacement parts, do not attempt temporary repairs.
SAFE OPERATING INSTRUCTIONS— Cont.

The unit should be located in a convenient place in your shop. It is desirable to exhaust the unit to the outdoors using a laundry dryer type vent. If this is not possible then direct the hose onto the floor away from the operator and other persons. Do not exhaust the unit into the vent pipe of a dryer or other similar piece of equipment. This can cause dangerous fumes to flow back through the unit.

INSTRUCTIONS FOR USE

The EXHAUSTEX 1500 should be switched on using the master switch located on the back of the unit. Place the item to be cleaned on the cleaning screen and conduct the cleaning operation. The unit should be left running during and after the cleaning process, to ensure that all the chemical is evaporated. It is safe to leave the unit running for extended periods of time, as the motor has a built in cooling fan.

Never use this unit for any other purpose other than that of an exhaust station for spot cleaning. It is not an air cleaner and does not provide a source of clean air.

CARE AND MAINTENANCE

There is no regular or routine maintenance required for the EXHAUSTEX 1000. Should the unit at any time lose power check that the exhaust hose is free from obstructions and is not crushed or damaged.

After an extended period of use (normally 6 months to a year) it may be necessary to “de-lint” the blower unit. This is a very simple operation that takes about 5 minutes.

1. Disconnect unit from power.
2. Remove the exhaust hose from the unit.
3. Remove the exhauster arm.
4. If the “squirrel cage” blower unit has lint build up, scrape off using a screw driver.
5. Once clean, refit the arm onto the unit.
6. Place a trash bag over the exhaust duct and hold it on with your hand.
7. Plug the unit back in and switch on until all of the lint has been blown out of the unit
8. Reattach the hose.

Never place anything in the exhaust duct while the unit is running

The EXT1500 is equipped with a fuse to protect the electrical circuit. Should the unit ever stop working, check the fuse. This is located at the bottom of the power inlet. A replacement fuse is provided in the fuse holder. Only use the correctly rated type of fuse- 5mm x 20mm 6.3 amp 230v
REPLACEMENT PARTS

Replacement parts are available directly from Tekmar or through your local distributor.

Screen replacement is very simple.

1. Disconnect unit from power
2. Remove the exahuster arm from the unit.
3. Remove the 9 screen clamp screws from the exahuster arm.
4. Slide the arm off the screen clamp bracket
5. Remove the damaged screen from the arm and replace it with the new part.
6. Replace the screws in the reverse order of above
7. Refit arm to unit
OPERATOR
MANUAL

HORIZON
&
MINI HORIZON

Screen Print Presses

Rapid
Quick Wave
Quartz Flash Unit
Model #
RWQF1516
Serial # 07083700

Anatol Equipment MFG. Co.
801 Technology Way
Libertyville, IL  60048 USA

Phone  847-367-9760
847-367-9818
Fax  847-367-9764
ANATOL Equipment Mfg. Co.
Screen Print Equipment

"Print Smart........................................Not Hard"

Thank you for your purchase of the Horizon, a Fully Automatic Screen Printing Press. The Horizon is controlled from an operator friendly membrane switch control panel, allowing the user quick and easy access to all machine parameters. In addition, the Horizon has a Pneumatic-driven print carriage system with speed control in both print and flood directions.

We at ANATOL E.M.C., welcome you to our family and look forward to a long and lasting relationship, allowing us to serve your needs now and in the future.

Should you have any questions or require equipment service, contact our service department at 847-367-9760 - 24 hours a day, 7 days a week, or fax your inquiry during normal business hours to 847-367-9764. When you call please have your machine serial number information available so we may assist you quickly.

Go to www.anatol.com to view other Anatol E.M.C. Screen Print Equipment!
SECTION I  MACHINE SETUP AND OPERATION

1.1.0 Safety Precautions 1.1.5 Installation Requirements 1.2.0 Main Air Regulator and Pneumatic Oilier 1.2.5 Machine Start-up Procedure 1.3.0 Platen Placement 1.4.0 Micro Registration 1.5.0 Operator Safety guarding 1.6.0 Indexer lubrication

SECTION II  OPERATION

2.1.0 Operating Console 2.1.5 Main Control Panel Description 2.2.0 Main LCD Screen 2.2.1 Print Head Setup Menu 2.2.2 Indexer Setup Menu 2.2.3 Lift Setup Menu 2.2.4 Shuttle Flash Setup Menu

2.3.0 Machine Errors and Faults

SECTION III  FLASH CURE UNITS

3.1.0 Flash Descriptions 3.2.0 Shuttle Flash units 3.3.0 Rapid Wave Flash Units 3.4.0. Flash Specifications
Table Of Contents

SECTION IV MAINTENANCE
   4.1.0 Recommended Lubrication 4.2.0
   Recommended Maintenance

SECTION V SUPPORT DOCUMENTATION 5.1.0 Print
   Head Carriage Diagram 5.2.0 List of Illustrations
   and Photo’s

SECTION VI WARRANTY and Limitation Of Liability 6.1.0 Warranty
   and Limitation Of Liability
Horizon

&

Horizon Mini

SECTION I

Machine Setup & Operation

All materials and data contained in this document are Confidential and Proprietary. The Information contained herein is strictly for customer use only. 08/02/05.
1.1.0 Safety Precautions

TO ENSURE SAFE AND CONTINUOUS OPERATION OF YOUR HORIZON SCREEN PRINT MACHINE
ALL OPERATORS OF AND NEAR TO THIS SYSTEM SHOULD UNDERSTAND THE FOLLOWING
RECOMMENDATIONS:

1. Always wear safety goggles or glasses.
2. An operating machine should never be left unattended.
3. Keep all hands, tools, hair, jewelry, and articles of clothing away from the indexer & print head
during operations.
4. Never alter the internal wiring of this machine. Only a qualified electrician should perform electrical
connections and ensure proper grounding. (See NEC codes)
5. Maintenance on this machine should begin only after all power has been shut off at the control panel and
at the incoming circuit breaker. Wait five (5) minutes for the electrical power down. Make sure the
emergency stop button has been engaged (pressed in)

1.1.5 Installation Requirements

Installation of any HORIZON will be done ONLY by a factory trained technician and/or
by persons approved by ANATOL Screen Print Inc. We will furnish one (or more) factory
technician(s) to assist and supervise the equipment installation. The end user will provide
additional labor and handling equipment.

All crate dismantling, equipment positioning and spotting should be handled prior to
the service technicians arrival (WITH THE EXCEPTION OF THE PRINT HEADS).
Installation of all utilities, electrical drops, and air/ pneumatic lines are at the user’s
expense. The end user must also obtain all necessary and required permits.

A.) Remove the Horizon indexer from the skid and all wrapping/packaging material. Remove
all blocking, screws, nails and/or strapping materials from any components that were
fastened or secured for shipment.

B.) A forklift with 6-8” extended forks capable of lifting 5000 lbs. will be required to unload
the truck and remove the base from its skid. Spot the base in the desired location, installing
the footpads (if not already installed) with the forklift. The base will be leveled and the
footpads tightened by the installing technician.

All materials and data contained in this document are Confidential and Proprietary. The information contained herein is strictly for customer use only. 08/02/05.
1.1.5 Installation Requirements (cont.)

*CAUTION: DO NOT REMOVE THE PRINT HEADS FROM THEIR CRATE(S). This will be supervised by the installing technician. Damage may be caused to the head keypad, screen holder extrusion, electrical cables and air lines. You may remove the top of the Head crate(s), but leave the print heads in the crate.

*Adequate space to spot the machine is required before the Anatol technician and the shipment arrive.

C.) Have a qualified electrician supply the main enclosure disconnects with the required voltage, according to N.E.C Standards. (The serial number tag on the electrical enclosure will provide electrical requirement information). DO NOT USE electrical conduit as a ground. A separate ground wire must be provided.

*Some machines will be wired 115 / 120VAC, 2A, 60Hz. - an electrician will be required for this standard connection. However, all Flash Units are at least 208-240VAC, either single of 3 phase and should be connected by a qualified electrician.

D.) A plumber may be required to connect the compressed air supply during the initial stages of the install. Plumb the required Compressed Air SCFM to the air regulator, use only industry rated air hose. Do not use P.V.C piping or tubing for this connection. A Compressed Air Dryer is required for the pneumatic components of this machine. This is NOT supplied by ANATOL Screen Print. Failure to install a Compressed Air Dryer will void the warranty on all pneumatic components and related parts. The inlet to the regulator is 3/8” NPT. A minimum of 90 PSI air supply must be delivered to the press for adequate performance. Do not exceed 100 PSI on the air regulator.

E.) The installing technician will assemble and level the rest of the machine. Some additional labor will be required during the installation assembly, most likely some lifting when installing the print heads.
1.1.5 Installation Requirements (cont.)

Diameter 10' - 6"

FIG. 1

Diameter 11' - 0"

FIG. 2

Diameter 12' - 5"

FIG. 3

Diameter 13' - 8"

FIG. 4
1.2.0 Main Air Regulator & Pneumatic Oiler

**Caution: Do Not Exceed 100 PSI On The Air Regulator**

Air Regulator Pressure Adjustment

Incoming Supply Air

Air Regulator (Left Side) (default value is 90 PSI)

Oil Drop Site Glass/ Oil Fill

Air Pressure Sensor Switch

Pneumatic Oiler (Right Side)
*Use pneumatic tool oil. DO NOT USE MACHINE WITHOUT OIL

IMPORTANT: If Machine is equipped with a pneumatic oiler, make sure oiling does NOT exceed one drop per fifty (50) cycles.

FIG. 5

Main Air Regulator Gauge

IMPORTANT: If machine is equipped with a pneumatic oiler, make sure oiling does NOT exceed one drop per fifty (50) cycles

COMPRESSED AIR SCFM REQUIREMENTS
1.2.5 Machine Start-Up Procedure

A.) Starting the machine is a simple step-by-step procedure. With a slight counterclockwise twist, pull the “E-STOP” (emergency stop) button. It is located on the front of the Main Control Panel (See figure 6 below).

B.) Turn the “On/Off” Key switch to the “On” position. It is in the upper left corner on the front of the Main Control Panel. (See figure 6). You will hear an audible beep and the computer will scan for connected devices (indexer, print heads & flashes). Check that all safety bars are in the correct (closed position. The machine will not operate with a safety bar open. (See figure 13 page 13)

C.) Correct/ Clear any fault messages that may appear on the display screen.
- To clear fault messages: Press the Reset button, and wait until the reset has finished. This may take a few seconds

D.) The machine should now be ready to operate.
Use the Cycle button to choose either AUTO MODE or MANUAL MODE. The Machine is now ready to run in the chosen mode of operation. Pressing the START button will start the machine after a short (time duration programmable) warning chime. To stop the machine normally, press the STOP button. The machine will stop when the index/print cycle has completed.
1.3.0 Platen Placement

There are currently 2 styles of mounting for platens on the Horizon. Both require the platen to be locked before running the press. Also, some attention must be given to the orientation of the long end of the platen on “ANATOL STYLE” and to the positioning of the platen on slide mount style.

Anatol Style Pallet Open
Fig. 7

Anatol Style Partly Locked
Fig. 8

Anatol Style Locked
Fig. 9

Slide Style Pallet Mounted
Fig. 10

Slide Style Pallet Arm
Fig. 11
1.4.0 Micro Registration

A. To micro in the print registration, do the following steps.

1.) Release left side screen clamps (manual and optional Pneumatic)
2.) Loosen front rear micro locks on the top of the right side screen holder.
3.) Adjust registration by turning the appropriate Micro Adjustment knob.
4.) Upon completion of adjustments, re-tighten front and rear micro locks on
   the top of the right side screen holder
5.) Reclamp the left side screen clamps
6.) Repeat above steps as necessary

FIG. 12
1.5.0 Operator Safety Guarding

Safety Guards are provided on the press conforming to OSHA requirements in order to prevent injury to operators and maintenance personnel. Safety Guards consist of safety bars placed between each print head. Servo index models have safety beams for added protection at the LOAD and UNLOAD stations.

Safety Bars are positioned between each print head. This is an electro-mechanical switch that allows operation of the machine only when in the “Closed” position.

Fig. 13 Safety Bar Guarding

1.60 Indexer Lubrication

Fig. 14

Indexer Grease Fittings

Fig. 15

Indexer should be lubricated with industrial grade grease on a weekly basis.
HORIZON

&

MINI HORIZON

SECTION II

OPERATING CONSOLE
2.1.0 Operating Console

The Horizon features a main control panel attached to an extended arm that is attached to the center of the machine. The extending arm can then be rotated around the perimeter of the machine, so the user always has access to the controls.

DO NOT USE THE “STOP” BUTTON, as this will allow the machine to continue to run until the current cycle is completed. To restart the machine, refer to the standard startup procedure. Once the E-stop button has been depressed, to release, turn the button counter-clockwise to release and perform the reset procedure.

Upon starting the machine, you will briefly see the Initialization process on the LCD screen.

FIG. 17
2.1.0 Operating Console cont.

E-STOP Switch (Emergency Stop) located on upper right of main display panel.

Fig. 18

E-Stop should be pressed when machine needs to be stopped in mid-cycle. E-Stop is for emergency use only.
<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESPONSE</th>
</tr>
</thead>
</table>
| 1.) a: T-shirt with **UP** arrow LED lights up  
   b: T-shirt with **DOWN** arrow LED lights up | Tells use to load a shirt  
   Tells user to remove the shirt |
| 2.) Press **Index** < or > | Machine will index one position in the print direction |
| 3.) Press **Free Wheel** | Machine will index freely |
| 4.) Press **Table** | Lifts or lowers the table. |
| 5.) Press **Skip** | Machine will not print that platen. |
| 6.) Press **Dwell** | Toggles between **Cycle & Flash dwell** on Main Screen. |
| 7.) Press **Test** | Machine will manually print a single head.  
   To print a head from the control panel:  
   a. Press **Head On/Off** button  
   b. Press corresponding **T-Shirt**  
   c. Press **Test Print** button  
   d. Press **Head On/Off** button  
   This will print the individual head. |
| 8.) Press **Cycle** | Toggles between **Man. & Auto.**  
   Auto Mode: Machine will lift and print according to the “C” dwell time.  
   Manual Mode: The start button or foot pedal must be pressed for each cycle |
| 9.) Press **Mode** | Toggles between Setup, Print & Test. |
| 10.) Press **Start** | Prepares machine for the start of a print run. |
| 11.) Press **Finish** | Turns off Heads automatically to end a run. |
| 12.) Press **Start** | Continues a print run. |
| 13.) Press **Reset** | Resets the machine to clear a fault or machine error. |
| 14.) Press **Stop** | Stops machine at the completion of the current cycle. |
| 15.) Press a T-shirt on the panel | Tells the machine where the garment is. |
### 2.1.5 Main Control Panel Description (Cont.)

<table>
<thead>
<tr>
<th>ACTION /DESCRIPTION</th>
<th>RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.) Pressing Stop button</td>
<td>Stops current cycle. Can be depressed any time, however, the press will always complete current cycle. In case of emergency, DO NOT press cycle stop button. Press EMERGENCY stop button located on the front of the main control panel!</td>
</tr>
<tr>
<td>17.) Menu Display Screen</td>
<td>Shows current status of operation. Also displays cycle dwell time, flash dwell time and cycle counts. Access setup menus for all machine functions see page 18.</td>
</tr>
<tr>
<td>18.) Pressing Menu button</td>
<td>Displays a list of specific setup menu for the individual device features on the Horizon. A complete list of the Menus may be found on page 20.</td>
</tr>
<tr>
<td>19.) Scroll “UP/Down” button</td>
<td>Use this button any time the cursor needs to be moved through the menu selections</td>
</tr>
<tr>
<td>20.) Enter button</td>
<td>Used to navigate the setup menus and to store chosen perimeters. Also used in setting flashed to specific print head positions.</td>
</tr>
<tr>
<td>21.) Cancel button</td>
<td>Used to exit setup menus and/or to cancel parameter settings.</td>
</tr>
<tr>
<td>22.) Counter Reset</td>
<td><strong>Reset</strong>- Press to clear current count and reset the counter number</td>
</tr>
</tbody>
</table>
| 23.) SPECIAL FEATURES Sequence Of Operation | Press head button number  
Press adjacent T-shirt head button  
Press number in **RW CURE TIME** section (corresponding function selection number listed below)  
Press head button number  

**Function Selection Number**  
1. – Move print carriage to the front / rear  
2. – Move squeegee to the down position  
3. – Not currently used |
2.2.0 Main LCD Screen

2.2.0 Main Screen
*This is the standard Main Screen that is generally seen when running production.

1. Total Count
   This is the total number count of the index/print cycles that the machine has made. The calculation is made based on either the 1st or last printed head. Not user settable.

2. Daily Count
   This is a count of index/print cycles accumulated since the last time the T-Shirt Counter was reset by the operator. (See page16 - N0.27)

3. Machine Ready
   Indicates that all systems are normal and the machine is ready to cycle.

4. SPRT
   Indicates that all Print Heads are in “Single Print” mode. (Will change to MRPT when 1 or more heads are set to Multiple Print Strokes.)

5. CCW / CW
   Indicates machine is running in a counter-clockwise or clockwise direction as set by the factory at the customer’s request. ** Pneumatic index runs in one direction only.

6. C. Dwell (Cycle Dwell Time)
   This displays the delay time between Index/Print cycles when the Horizon is being run in Automatic mode. Use settable by pressing the “Dwell” button and the Scroll Up/Down key.

7. F. Dwell (Flash Dwell Time)
   The amount of time in seconds that the Indexer table (platens) stays in the “Up” position and heating AFTER the cure time has expired. The default value is 0.0 seconds.

8. DZ/HR (Dozens per Hour)
   This indicates the approximate production speed at which the Horizon is cycling in dozens per hour.

All materials and data contained in this document are Confidential and Proprietary. The Information contained herein is strictly for customer use only. 08/02/05.
1. Main Setup Menu Selections
Use the Scroll Up/Down button to move the cursor to "Print Head", and then press the "Enter" Button to access the Print Head Setup menu.

2. Choosing Specific or All Print Heads
Use the Scroll Up/Down key to select either "All" print heads or a specific print head and then press the "Enter" button to access the parameters for the chosen print head(s).

Use the Scroll Up/Down key to make the selection and then press the "Enter" button to set or store the parameter.

| Multiprint | This parameter setting is for telling the print head how many times it should print before indexing. Note- Between each print stroke, the indexer table must drop to its lowered position (for flooding), therefore increasing the cycle time. |
| Stop Position | NO current function- Reserved for future use. |
| Auto Flood Delay | Useful when printing with water-based inks, this is a time setting in seconds (0 sec.) that commands the print head to "Flood" after the cycle has finished and does not receive another print signal. The 0.0 setting is used for Plastisol (no delay). Anything other than 0.0 is used for water-based ink. |
| Chopper Delay | This is a time setting in seconds (default is 0.8 sec.) to delay the command of the squeegee going from its "Up" position to the "Down" position to ensure that print stroke will not start before the squeegee makes contact with the screen. |
| Default Parameters | To reset the default parameters for the chosen print head(s), choose ‘Yes’ and press the “Enter” button. |
Main Setup Menu Selection-Indexer
Use the Scroll Up/Down button to move the cursor to INDEXER and then press the ENTER button.

Default Parameters
To reset the Indexer to the default parameters, choose “Yes” and press the ENTER button.

2.2.2 Indexer Setup Menu

MAIN SETUP MENU
MACHINE
PRINT HEAD
> INDEXER
LIFT
SHUTTLE FLASH
RAPID WAVE FLASH

FIG. 24
INDEXER SETUP
DEFAULT PARAMETERS [YES/NO]

FIG. 25
2.2.3 Lift Setup Menu

Main Setup Menu Selection- Lift
Use the Scroll Up/Down button to move the cursor to “LIFT” and then press the “Enter” button.

Lift Delay  No current Function; on regular Trident series only

This is a time delay setting in seconds (0

2.2.4 Shuttle Flash Setup Menu

Main Setup Menu Selection- Shuttle Flash
Use the Scroll Up/Down button to move the cursor to “SHUTTLE FLASH”, and then press the “Enter” button.

Shuttle Flash Delay sec.) to tell the Print Head when to retract a connected Shuttle Flash to its “Out” position. After the machine is stopped, the flash must be moved to the “Out” position. This is the amount of time allowed to elapse before this motion occurs. The default setting is 10 seconds.
### 2.3.0 Machine Errors & Faults

<table>
<thead>
<tr>
<th>Specific Faults</th>
<th>Possible Causes &amp; Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FAULT: ERROR 1</strong>&lt;br&gt;Description:&lt;br&gt;Lift UP Proximity Error&lt;br&gt;Signal not received from the Up or “Top” proximity switch on Indexer Lift cylinder.</td>
<td>This error indicates that the machine failed to receive a signal from the UP or top proximity switch on the Lift cylinder. The cause may be not enough air pressure for the Lift cylinder to raise the table to its “Up” position. Usually it is a problem with the proximity switch itself. Check for a lit LED on the proxy switch and check the cable for correct attachment. If the problem persists, contact the Anatol Inc. Service Department.</td>
</tr>
<tr>
<td><strong>FAULT ERROR 2</strong>&lt;br&gt;Description:&lt;br&gt;Lift DOWN Proximity Error&lt;br&gt;Signal not received from the Down or “Bottom” proximity switch or Indexer Lift cylinder</td>
<td>This error indicates that the machine failed to receive a signal from the DOWN or lower proximity switch on the Lift cylinder. The cause may be a plugged exhaust port or muffler or a kinked hose. Usually it is a problem with the proximity switch itself. Check for a lit LED on the proxy switch and check the cable for correct attachment. If the problem persists, contact the Anatol Inc. Service Department.</td>
</tr>
<tr>
<td><strong>FAULT ERROR 3</strong>&lt;br&gt;Description:&lt;br&gt;Table Lock Error&lt;br&gt;Signal not received from the Down or “Bottom” proximity switch or Indexer Lift cylinder</td>
<td>This error indicates that the machine failed to receive a signal from the INDEXER Drive lock cylinder (often referred to as the free index or free wheel) when engaging. The cause may be the cylinder itself, or a kinked hose. Usually it is a problem with the proximity switch itself. If the problem persists, contact the Anatol Inc. Service Department.</td>
</tr>
</tbody>
</table>
2.3.0 Machine Errors & Faults
Cont.

<table>
<thead>
<tr>
<th>Specific Faults</th>
<th>Possible Causes &amp; Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAULT: ERROR 4</td>
<td>This error indicates that there is inadequate air pressure to the machine. Check the air</td>
</tr>
<tr>
<td>Description:</td>
<td>compressor or check the air regulator valve on the base of the machine. If problem persists</td>
</tr>
<tr>
<td>Air Switch Error</td>
<td>contact the Anatol Inc. Service Department.</td>
</tr>
<tr>
<td>-The air was not connected</td>
<td></td>
</tr>
<tr>
<td>-The pressure is too low</td>
<td></td>
</tr>
<tr>
<td>-The air switch has malfunctioned,</td>
<td></td>
</tr>
<tr>
<td>or a cable has been broken</td>
<td></td>
</tr>
</tbody>
</table>

**PLEASE NOTE:**

There are a few other extremely rare faults that may occur. The frequency of these faults is very low, and for that reason, they have not been listed in the above dialogue. Should you experience or encounter a fault that is not listed above, please contact the Anatol, Inc. Service Department and explain the problem.

Our goal is for the user to never experience any faults.

We are constantly working to improve reliability and performance and appreciate any and all feedback from all users of our equipment.
HORIZON

6/8/10/12

Station

SECTION III

IR Quartz
Shuttle Flash Units
3.1.0 Flash Descriptions

Currently offered as accessories to the Horizon Screen Printing Press are the Shuttle Flash, and the Rapid Wave IR Quartz Flash.

The Shuttle Flash and the Rapid Wave IR Quartz Flashes are installed for use on the machine in the same manner. They either install into a print head as one would install a screen, or into a flash stand if the Horizon was not shipped with a full rack of heads. For example, if you purchased a 10 station machine but only ordered 7 print heads, then in the empty head position, you will not find an arm with attached screen holders into which the flash may be installed.
3.2.0 Shuttle Flash Unit

The Shuttle Flash Unit is one of the simplest flashes available in the industry. Controlled by temperature and time (intensity x duration), the flash is installed into the screen holders and then attached with the supplied bracket to the squeegee bar with standard squeegee clamps.

The temperature controller is set depending on the average cycle speed, ink, ink deposit, and substrate being printed. A very general starting range temperature, with an approximate cycle time in the 3 to 5 second range, would be somewhere between 800 degrees and 1000 degrees Fahrenheit or 427 degrees to 538 degrees Celsius. Time, temperatures, and substrates vary greatly and these times and temperatures are meant only to be a very general guide.

On the flash temperature controller (located on the front of the flash itself), there are 2 buttons- SV (Set Value) and PV (Present Value). Press "SV" and use the arrow keys to raise the LED number to the desired temperature. Then press the "PV" button to return to the actual temperature read by the thermocouple in the IR panel. If the unit has been off for some time, the PV value should read the approximate ambient room temperature, then it will begin to rise as the panel heats up.

TO SETUP A SHUTTLE FLASH:

1.) Press the "Select" button in the Flash Cure section of the

   **Main Control Panel. See page 17 Fig. 19**

   The diode on the "Select" button will be blinking

2.) Press the "Head On/Off" button at the desired

   **Head position to set the flash.**

   The diode on the he Head will not turn solid Red-
   to indicate it will function as a shuttle flash unit.

   The "Select" button will stop blinking.

3.) Set the Shuttle Flash delay in the menu. See page 22, Shuttle Flash Menu Setup.

   **Caution**

   NO FLASH CURE UNIT SHOULD EVER
   BE LEFT UNATTENDED WHILE IT IS
   PLUGGED IN!

All materials and data contained in this document are Confidential and Proprietary. The Information contained herein is strictly for customer use only. 08/02/05.
The Rapid Wave Quartz Flash Unit is one of the fastest flashes available in the industry. The unit employs medium wave quarts, sealed halogen heating tubes that heat up almost instantly.

This flash is also used only in the temperature and time (intensity x duration) mode operation only, which relies on cycle time and runs the flash at full power for a settable, given amount of time.

Install the Flash into the screen holders of the desired position and plug in the communication cable to the base of the machine (See section 3.2.0 for flash communication connection).

**Caution**
NO FLASH CURE UNIT SHOULD EVER BE LEFT UNATTENDED WHILE IT IS PLUGGED IN

RapidWave Flash installed in Print Head

---

**TO SETUP A RAPIDWAVE FLASH:**

1.) Go to the Main Setup Menu in the Main Control Panel. See page 17, Fig. 19
2.) Choose the Flash and then assign it to the correction position.
    The diode on the Head position will blink Red.
3.) One you have pressed the “Enter” button the Head is now assigned as a Rapid Wave Flash.
    The Diode on the print Head position should be orange in color.
    You can still use the Print Head “On/Off” button to turn the Flash on and off.
4.) If needed, set the Rapid Wave “Cure Time” in the Setup Menu.
    See page 22, Rapid Wave Flash Setup Menu
FLASH CURE TECHNICAL DATA

Shuttle Flash Unit:
Heating Zones Heating 18 x 20
Elements Temperature 1 1
Controller Type Total Power FUJI
Amp Draw 4.0 Kw@ 230 VAC*
Voltage 18A@230 VAC

*NOTE Total power consumption is dependent on temperature set point and cycle time.

RapidWave Quartz Flash:

Heating Area 16 x 20
Zone Fans Control Box 2 2 1 9
Cooling Fans Quartz None
Elements Sensor Type Total Power 13.5 Kw @ 240 VAC*
Amp Draw 36A @ 240 VAC
Voltage 208-240 VAC, 3Ph., 50/60 Hz.

*NOTE Total power consumption is calculated for all Quartz lamps working at maximum power.

RapidWave Quartz Flash

Heating Area 18 x 28
Zone Fans Control Box 3 6 2
Cooling Fans Quartz 14
Elements Sensor Type Total Power None
Amp Draw 21.0 Kw @ VAC*
Voltage 55A @ 240 VAC

*NOTE Total power consumption is calculated for all Quartz lamps working at maximum power.

All materials and data contained in this document are Confidential and Proprietary. The information contained herein is strictly for customer user only. 08/02/05.
HORIZON

6/8/10/12

Station

SECTION IV

MAINTENANCE
### 4.1.0 Recommended Lubrication

<table>
<thead>
<tr>
<th>System</th>
<th>Location</th>
<th>Lube Type Recommended</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indexer Drive &amp; Indexer Lift</td>
<td>Center Shaft Bushings (Grease Fittings x 2)</td>
<td>Grease</td>
<td>White Lithium</td>
</tr>
<tr>
<td>Pneumatic Oilier</td>
<td>Main Air Regulator Oilier Assembly</td>
<td>Pneumatic Tool Oil</td>
<td>Pneumatic Tool Oil ONLY</td>
</tr>
<tr>
<td>Print Head</td>
<td>Carriage Drive (Bearing Track)</td>
<td>Grease</td>
<td>Replex Multi-Purpose Lithium Complex Grease</td>
</tr>
</tbody>
</table>

*Replex Multi-purpose Lithium Complex Grease is and extreme pressure, high temperature, water, rust and corrosion resistant grease. It is produced by Century Lubricants Co., Kansas City, KS. 66111

### 4.2.0 Recommended Maintenance

Other than checking the scheduled lubrication (refer to section 4.1.0), cleaning is the only maintenance required.

---

All materials and data contained in this document are Confidential and Proprietary. The information contained herein is strictly for customer use only. 08/02/05.
HORIZON

6/8/10/12

Station

SECTION V

SUPPORT DOCUMENTATION
* To make an adjustment to the squeegee and flood racks with the ratchet set: -Turn the ratchet counter-clockwise to adjust the indexer DOWN 0.005 inch -Turn the ratchet clockwise to adjust the indexer UP 0.005 inch.
<table>
<thead>
<tr>
<th>ILLUSTRATION No.</th>
<th>DESCRIPTION</th>
<th>PAGE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fig. 1</td>
<td>Top isometric View of 6 Station Horizon</td>
<td>8</td>
</tr>
<tr>
<td>Fig. 2</td>
<td>Top isometric View of 8 Station Horizon</td>
<td>8</td>
</tr>
<tr>
<td>Fig. 3</td>
<td>Top isometric View of 10 Station Horizon</td>
<td>8</td>
</tr>
<tr>
<td>Fig. 4</td>
<td>Top isometric View of 12 Station Horizon</td>
<td>8</td>
</tr>
<tr>
<td>Fig. 5</td>
<td>Main Air Regulator &amp; Pneumatic Oiler</td>
<td>9</td>
</tr>
<tr>
<td>Fig. 6</td>
<td>LCD Display, E-Stop Switch &amp; On/Off Key Switch</td>
<td>10</td>
</tr>
<tr>
<td>Fig. 7</td>
<td>Anatol Style Platen Mount - Unlocked</td>
<td>11</td>
</tr>
<tr>
<td>Fig. 8</td>
<td>Anatol Style Platen Mount - Locked</td>
<td>11</td>
</tr>
<tr>
<td>Fig. 9</td>
<td>Anatol Style Platen</td>
<td>11</td>
</tr>
<tr>
<td>Fig. 10</td>
<td>Slide Mount Style Platen Mount</td>
<td>11</td>
</tr>
<tr>
<td>Fig. 11</td>
<td>Slide Mount</td>
<td>11</td>
</tr>
<tr>
<td>Fig. 12</td>
<td>Screen Holder, Carriage &amp; Micros</td>
<td>12</td>
</tr>
<tr>
<td>Fig. 13</td>
<td>Safety Bar Guarding</td>
<td>13</td>
</tr>
<tr>
<td>Fig. 14</td>
<td>Indexer Grease Fittings</td>
<td>13</td>
</tr>
<tr>
<td>Fig. 15</td>
<td>Indexer Grease Fittings</td>
<td>13</td>
</tr>
<tr>
<td>Fig. 16</td>
<td>Main Control Panel &amp; E-Stop Switch</td>
<td>15</td>
</tr>
<tr>
<td>Fig. 17</td>
<td>Initialization Screen</td>
<td>15</td>
</tr>
<tr>
<td>Fig. 18</td>
<td>E-Stop Main Control Panel Buttons</td>
<td>16</td>
</tr>
<tr>
<td>Fig. 19</td>
<td>Main Control Panels Buttons</td>
<td>17</td>
</tr>
<tr>
<td>Fig. 20</td>
<td>Main LCD Screen</td>
<td>19</td>
</tr>
<tr>
<td>Fig. 21</td>
<td>Main Setup Menu - &quot;-&gt; Print Head&quot;</td>
<td>20</td>
</tr>
<tr>
<td>Fig. 22</td>
<td>Print Head Setup Menu &quot;Head Selection&quot;</td>
<td>20</td>
</tr>
<tr>
<td>Fig. 23</td>
<td>Print Head Setup Menu</td>
<td>20</td>
</tr>
<tr>
<td>Fig. 24</td>
<td>Main Setup Menu - &quot;-&gt; Indexer&quot;</td>
<td>21</td>
</tr>
<tr>
<td>Fig. 25</td>
<td>Indexer Setup Menu</td>
<td>21</td>
</tr>
<tr>
<td>Fig. 26</td>
<td>Main Setup Menu Lift</td>
<td>22</td>
</tr>
<tr>
<td>Fig. 27</td>
<td>Lift Setup Menu</td>
<td>22</td>
</tr>
<tr>
<td>Fig. 28</td>
<td>Main Setup Menu Shuttle Flash</td>
<td>22</td>
</tr>
<tr>
<td>Fig. 29</td>
<td>Shuttle Flash Setup</td>
<td>22</td>
</tr>
<tr>
<td>Fig. 30</td>
<td>Shuttle Flash Photo</td>
<td>27</td>
</tr>
<tr>
<td>Fig. 31</td>
<td>Rapid Wave Quartz Flash Photo</td>
<td>28</td>
</tr>
<tr>
<td>Fig. 32</td>
<td>Print Head Carriage Photo</td>
<td>33</td>
</tr>
</tbody>
</table>
6.1.0 Warranty and Limitation of Liability

DISCLAIMER OR WARRANTY AND LIMITATION OF LIABILITY

NOTE: As of the date of this printing, all electrical, air and/or gas specifications listed herein reflect current machine requirements and are deemed correct. This information is in lieu of any other electrical, air and/or gas specifications expressed or implied.

ANY POWER REQUIREMENTS LISTED ABOVE INDICATED NEAR ACTUAL PULL LOAD RUNNING POWER CONSUMPTION. THEY DO NOT DICTATE FINAL REQUIRED AMPERAGE RATING OF THE POWER FEED LINES. THESE RATINGS ARE TO BE CALCULATED BY A COMPETENT ELECTRICIAN OR AN ELECTRICAL CONTRACTOR.

Installation:
We will furnish one (or more) factory technician(s) to assist and supervise the equipment installation. Buyer will provide additional labor and handling equipment. All crate dismantling and equipment positioning should be handled prior to service technician arrival. Installation of all utilities are at the Buyer’s expense. Buyer must also obtain all necessary and required permits. Buyer must ready all electrical (including grounding spike), air and/or gas lines within shop for equipment installation. Failure to ready necessary utilities prior to the arrival of the Anatol E.M.C. service technician will result in a $600.00 penalty for each day installation is delayed.

Buyer herewith agrees that if shipment of equipment is made on partial basis due to causes beyond Seller’s reasonable control, buyer will pay for partial shipment until equipment order has been fully shipped.

INSTALLATION CHARGE: All service technician travel, lodging and sustenance cost remain solely on the customer’s responsibility.

Limited Warranty:
A HORIZON manufactured or sold by Anatol Inc. is warranted against defects in workmanship and materials for a period of 1 year from receipt by customer, or 2000 hours of operation, whichever occurs first. All warranties initiate from date of shipment. Replacement parts are covered for the term of the machinery warranty period. Parts not under warranty are covered for 30 days form receipt by customer. Any part found by Anatol E.M.C. to be defective in material or workmanship within the stated warranty period will be replaced or repaired at Anatol E.M.C.’s options without charge when returned freight prepaid to Anatol E.M.C., 1363 Wilhelm Rd., Mundelein, IL 60060 USA.

Written authorization must be obtained from Anatol E.M.C. before any part will be accepted.

If, in the event that the supplied electrical current originates from sources other than a municipal power company (i.e. on-site fuel powered generator), ALL warranties will be null and void unless the electrical supply specifications are supplied to and subsequently approved, in writing, by Anatol E.M.C. electrical engineers.

Anatol E.M.C. does not warrant failure of parts or components resulting from misuse or lack of proper maintenance.

Any service work performed on this machine by person(s) other than (1) an Anatol E.M.C. certified Service Technician, or (2) persons specifically authorized by Anatol E.M.C., shall nullify this warranty. Consequential damages, lost man-hours, inconvenience or contingent liabilities are not covered under this warranty. All service technician travel, lodging and sustenance cost remain solely the customer’s responsibility.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES AS TO MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION HEREIN.

This warranty is applicable to original machinery owners only can cannot be transferred to subsequent machinery owners.

All materials and data contained in this document are Confidential and Proprietary. The Information contained herein is strictly for customer use only.

09/02/05.
Dri-Vault

Assembly, Operating, and Maintenance Instructions
Dri-Vault VDC-253610, VDC-253624, VDC-513610
VDC-253610-DHO & VDC513610-DHO

Contents

- Safety and Machine specs
- Assembly instructions
- Controls
- Operation, and Maintenance
- Troubleshooting
- Warranty

Page#
2
3
4-5
6
7
8

VDC-253624
VDC-513610
VDC-253610

Vastex International, Inc.
1032 N. Irving St.
Allentown, Pa. 18109 USA
Phone# 610 434-6004 Fax# 610 434-6607
Web Site www.vastex.com
E-Mail info@vastex.com

Authorized Representative in Europe:
Certification Experts BV
Nieuwstad 100 1381 CE Weesp,
The Netherlands
Tel : + 31 (0) 294 - 48 33 55
Fax : + 31 (0) 294 - 41 48 87

Vastex E-mail assistance
Purchasing & Product Info:
sales@vastex.com
Electrical Support:
stech@vastex.com
Tech Support, Mechanical Setup, and Operation
techsupport@vastex.com
Screen Printing Issues & Support:
printech@vastex.com

Electrical Drawing #: 02-08-004 Rev: C
Serial Number: VTX Date: / / (Please log your machine's serial number and date of purchase for future reference.)
Safety Instructions

The Instruction Manual and Safety Instructions must be read and understood by anyone operating the Vastex Screen Drying Cabinet.

- The operator should read and understand the instruction manual before operating this equipment. Store instruction manual and safety instructions near equipment for easy access to operators.
- VASTEX Screen Drying Cabinet is intended for the drying of emulsion on screen printing screens. Do not use for any other purpose unless authorized by Vastex International, Inc. Use of this equipment for any other purpose can be dangerous and may cause damage to this equipment voiding the warranty.
- It is recommended that the area around this equipment be designated as a work area and only authorized employees are allowed in this area.
- Children and pets must be kept clear from the work area.
- Never leave equipment unattended.
- DO NOT operate dry cabinet with any cover or guard removed.
- Operator must be familiar with controls of the dryer.
- Before starting production, the operator must check that all covers and guards are in place, no material has been left in the cabinet, and the exhaust duct is clear of any obstructions.
- Always turn off power at the main disconnect at the end of production.
- Do Not remove any cover or guard until power at the main disconnect is switched off and locked out. No unauthorized persons are to be allowed inside the control boxes.
- Turn off and lock out power at the main disconnect before cleaning and maintenance.
- Only qualified technicians should be allowed to make repairs on the VASTEX Screen Drying Cabinet.
- Noise and Vibration: This noise level produced by this equipment does not exceed 70 dB(A).

Machine Specifications

Drying times will vary. Humidity, thickness and type of emulsion used, and the size of screens are factors in Dri-Vault curing time.

<table>
<thead>
<tr>
<th>Defect Warranty</th>
<th>VDC-253610</th>
<th>VDC-513610</th>
<th>VDC-253624</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Year</td>
<td>3 Year</td>
<td>3 Year</td>
<td></td>
</tr>
<tr>
<td>Maximum # of Screens</td>
<td>10 @ maximum size</td>
<td>(10) @ 51&quot; x 36&quot; / (20) @ 25&quot; x 36&quot;</td>
<td>24 @ maximum size</td>
</tr>
<tr>
<td>Maximum Screen Size</td>
<td>25&quot; x 36&quot; x 1.625&quot; (63.5 x 91.4 x 4.12 cm)</td>
<td>(10 screens) @ 51&quot; x 36&quot;</td>
<td>25&quot; x 36&quot; x 1.625&quot; (63.5 x 91.4 x 4.12 cm)</td>
</tr>
<tr>
<td>Smallest Screen Width</td>
<td>18&quot; (46 cm)</td>
<td>No minimum size</td>
<td>18&quot; (46 cm)</td>
</tr>
<tr>
<td>Blower (Free Air)</td>
<td>200 CFM (5.7 cmm) 120 volts or 290 CFM (8.5 cmm) 240 volts</td>
<td>290 CFM (8.2 CMM)</td>
<td>580 CFM (17 CMM)</td>
</tr>
<tr>
<td>Overall Depth x Width x Height</td>
<td>39.5&quot; x 34.75&quot; x 29&quot; (100 x 88 x 74 cm)</td>
<td>37.9&quot; x 62.5&quot; x 32.3&quot; (96.3 x 159.1 x 81.9 cm)</td>
<td>39.5&quot; x 34.75&quot; x 81&quot; (100 x 88 x 206 cm)</td>
</tr>
<tr>
<td>Heater Wattage</td>
<td>1,250 Watts 120 Volts or 1,550 Watts 240 Volts</td>
<td>1,550 Watts @ 240 Volts</td>
<td>2 x 1,550 = 3,100 Watts 240 Volts</td>
</tr>
<tr>
<td>Electrical Power</td>
<td>120V / 10A / 1 Ph. / 60 Hz / NEMA 5-15P plug or 240V / 6A / 1 Ph. / NEMA 6-15P plug</td>
<td>240V / 18A / 1 Ph. / NEMA 6-15P plug</td>
<td>240V / 18A / 1 Ph. / 50/60 Hz / NEMA 6-20P plug</td>
</tr>
<tr>
<td>Shipping Weight*</td>
<td>367 lbs (166.5 kg)</td>
<td>573 lbs (277 kg)</td>
<td>670 lbs (303 kg)</td>
</tr>
<tr>
<td>Shipping Dimensions*</td>
<td>43&quot; x 43&quot; x 48&quot; [109 x 109 x 122 cm]</td>
<td>69&quot; x 43&quot; x 35&quot; [175 x 109 x 89 cm]</td>
<td>43&quot; x 43&quot; x 84&quot; [109 x 109 x 213 cm]</td>
</tr>
</tbody>
</table>

Putting this Equipment into Service —

To put your drying cabinet into use:
1.) Follow the assembly instructions on page 4 of this manual.
2.) Familiarize yourself with the controls and features of your unit (see page 5 and 6).

Using this Equipment —

To use your drying cabinet, follow the operating and maintenance instructions on page 7.
OPERATOR'S MANUAL

UV – LIGHT
Metal Halide Exposure Unit

31" x 40"

USA
ANATOL EQUIPMENT MFG. CO.
1397 Barclay Boulevard
Buffalo Grove, IL. 60089

Poland
Rejonowa 10
17 – 100 Bielsk Podlaski

Phone 847 – 367 – 9760
Fax 847 – 367 – 9764

Phone +48 85 731 – 93 – 00
Fax +48 85 730 – 17 – 79
1.2 Installation Requirements

1. Have a qualified electrician supply the main enclosure disconnects with the required voltage, according to N.E.C Standards. (The serial number tag on the electrical enclosure will provide electrical requirement information). DO NOT USE electrical conduit as a ground. A separate ground wire must be provided.

2. Machines will be wired 208 – 240VAC, 30A MAX, 60Hz, 1 phase. An electrician will be required for this standard connection.

CAUTION - HIGH VOLTAGE!

UV - LIGHT METAL HALIDE EXPOSURE UNIT system should be installed by competent service technicians experienced in servicing and operating high voltage. ANATOL EQUIPMENT MFG. CO. assumes no liability for injury resulting from not proper operation and servicing of this equipment.
SimAir GLOOBOOTH Spray Booth

Protect your safety while using spray paint with this portable device that removes all harmful fumes.

Item Code: AR-1Gloobooth
Avg. Rating
List $1,486.00
You Save: $386.01 (26%)
Quantity: 1

ADD TO CART

Select Options Below

Choose a Model:
* A4 ABS Polymer Gloobooth #FPA4 A4: $1,099.99
* A3 ABS Polymer Gloobooth #FPA3: $1,299.99
* A2 ABS Polymer Gloobooth #FPA2: $2,299.99
* A1 STEEL Gloobooth #FGBA1: $5,299.99

OPTIONAL Ducting Kit:
* No, thank you
  * Yes, Include 1 #FGBA2DC Ducting Kit for models A4, A3 or A2: add(+$199.99)
  * Yes, Include 1 #FGBA2DC(x2) 2 Ducting Kits for model A1 (The A1 needs 2): add(+$389.99)

OPTIONAL Replacement Set of Filters:
* No, thank you
  * Yes, add 1 Replacement Intake filter #FPA2/IF & 1 Replacement Charcoal filter #FPA2/CF: add(+$189.99)

OPTIONAL Replacement Hood:
* No, thank you
  * Yes, add 1 Replacement Hood #FPA2/H: add(+$89.99)

Product Description:

If you enjoy working with spray paint and other mediums that give off unhealthy and unbearable fumes, then you need the SimAir GLOOBOOTH Spray Booth. This portable booth is designed to capture all of the harmful fumes. With this device, you can protect your safety and health. There is no other product on the market that works this way since the fumes are drawn right into the filters of the product. Whether you are a professional artist or someone who simply enjoys the hobby, this machine should definitely be on your list.

The product is available in four different sizes to suit all of your needs. You should choose a size that will allow you to be creative in the manner you desire. The sizes are as follows:

* A4 GLOOBOOTH
  EXTERNAL 13"-width, 15.5"-depth, 15"-max height, 14"-min height

https://www.madisonartshop.com/spray-booth.html
From the maker:
MicroLux spray booths eliminate the hazards of spraying paint in confined areas. Inside the base of the downdraft-style booth is a powerful, brushless exhaust fan which draws paint overspray from inside the durable metal hood and passes it through a three-stage filter which removes pigment particles and solvent vapors, then vents the cleaned air outside the work area. The clear window which forms the top of the hood lets room light in, and can be easily fitted with an under-the-cabinet type fluorescent fixture for additional light (not included, but available at any home center). Includes 4 inch diameter exhaust port (for connection to metal-type clothes dryer ducts), on/off switch for fan, holes for hanging up parts, and filters. All metal construction. Hood requires a few minutes of assembly. 120v AC. Has interior dimensions of 15 inches deep x 20 inches long x 12 inches high. Single 185 cfm fan directs air flow out the back of the base. Overall height: 21 inches.

* This item is excluded from free shipping*

Price: $280.00

Product No. 002202

1 [Add to Cart]
The Wash-it is the perfect place to reclaim emulsion or ink out of your screen printing frames. Perfect to set up in your reclaim area. This sink is designed specifically for screen printers, being at waist height for ergonomic construction and built for function and comfort. The Wash-It sink is designed to have large screen capacity and multiple screen capacity making it perfect for all screen printers. The Wash-It has ridged steel construction, a translucent back window, and an adjustable screen rack. With easy and thorough drainage, the wash-it sink is excellent for your shop.

The Wash-It Screen Wash-Out Sink / Reclaim Booth is ideal for screen developing and reclaiming in small and medium sized shops. With a large screen size capacity of up to 25x36 (58.4x78.7cm), steel construction and translucent back window, the Wash-It is both durable and functional. The optional Squeegee Rack provides a convenient place for wet squeegees to dry.

- Depth 24", Width 36", Height 72"
- Large Screen Capacity
- Water-Proof Welding
- Steel Construction
- Translucent Back Window
- Adjustable Screen Tray
- Accepts Standard Plumbing Fittings
- Easy and Thorough Draining
- Easy to Assemble

Wash-It Sink by Workhorse Products

Related Products
Workhorse Wash-It Screen Wash Booth - 36" x 72"

- In-stock Item
- Delivery and any applicable Crating Fees included in price. Sales tax may apply in some states.

Price: $995.00

This Item Gets Free Shipping on orders of $199

Item: WOR11506

ADD TO CART

Review this Item
While a washout booth is essential in maintaining an efficient clean room, the disposal of ink and emulsion by-products is critical. Waste solids have the potential to ruin plumbing, septic systems — or both.

Blackline's solution to this problem is the Filter One, an under-sink filtration system that utilizes a dual-tank design to trap ink and emulsion solids before they reach the outflow. The Filter One hooks up to your present plumbing, and when used with biodegradable, non-toxic cleaners, discharge from the system is drain safe. It's extremely easy to operate and fits neatly under any of Blackline's washout booths, making a cost effective waste management system.

**RECENTLY VIEWED ITEMS:**

(Filter One HP (/filter_one_hp.htm)

$1,420.00

(Economy Series Splashless Washout Booths (/economy_washout_booths.htm)

$1,361.00-$3,042.00

Contact Us

[Phone Number] 847-233-0515

info@atlasscreensupply.com (mailto:info@atlasscreensupply.com)

9353 Seymour Avenue)
Sgreen Washout Booth Filtration System
write a review (/sgreen-washout-booth-filtration-system/newReview)
FLOOR STAND KIT

ASSEMBLY INSTRUCTIONS
**BLACK FLASH® HEATERS**

Prewired with 10 ft. cord, indicator light and on/off switch, The Black Flash® series is a “standard” in the industry for flash curing inks on textiles and other substrates. The heaters can be purchased alone or with stands and other accessories.

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>WATTS</th>
<th>VOLTS</th>
<th>AMPS</th>
<th>NOMINAL ELEMENT SIZE</th>
<th>HEATER DIMENSIONS</th>
<th>PLUG TYPE</th>
<th>SHIPPING WEIGHT</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BF1-1600S</td>
<td>1633</td>
<td>115</td>
<td>14.2</td>
<td>16” x 16”</td>
<td>16” x 20” x 23/4”</td>
<td>NEMA 5-15P</td>
<td>18 lbs.</td>
<td>$265.00</td>
</tr>
<tr>
<td>BF1-1800S</td>
<td>1873</td>
<td>230</td>
<td>8.1</td>
<td>16” x 16”</td>
<td>16” x 20” x 23/4”</td>
<td>NEMA 5-20P</td>
<td>18 lbs.</td>
<td>$270.00</td>
</tr>
<tr>
<td>BF2-2000S</td>
<td>2004</td>
<td>115</td>
<td>16.0</td>
<td>18” x 18”</td>
<td>18” x 22” x 23/4”</td>
<td>NEMA 5-20P</td>
<td>20 lbs.</td>
<td>$350.00</td>
</tr>
<tr>
<td>BF2-2200S</td>
<td>2175</td>
<td>115</td>
<td>18.9</td>
<td>18” x 18”</td>
<td>18” x 22” x 23/4”</td>
<td>NEMA 5-20P</td>
<td>20 lbs.</td>
<td>$350.00</td>
</tr>
<tr>
<td>BF2-2600S</td>
<td>2596</td>
<td>230</td>
<td>10.1</td>
<td>18” x 18”</td>
<td>18” x 22” x 23/4”</td>
<td>NEMA 5-20P</td>
<td>20 lbs.</td>
<td>$350.00</td>
</tr>
<tr>
<td>BF2-2700S</td>
<td>3346</td>
<td>208</td>
<td>12.8</td>
<td>18” x 18”</td>
<td>18” x 22” x 23/4”</td>
<td>NEMA 5-20P</td>
<td>20 lbs.</td>
<td>$350.00</td>
</tr>
<tr>
<td>BF2-3400S</td>
<td>3346</td>
<td>230</td>
<td>14.1</td>
<td>18” x 18”</td>
<td>18” x 22” x 23/4”</td>
<td>NEMA 5-20P</td>
<td>20 lbs.</td>
<td>$350.00</td>
</tr>
<tr>
<td>BF3-3001S</td>
<td>2939</td>
<td>230</td>
<td>12.8</td>
<td>18” x 24”</td>
<td>18” x 28” x 23/4”</td>
<td>NEMA 6-20P</td>
<td>30 lbs.</td>
<td>$440.00</td>
</tr>
<tr>
<td>BF3-3600S</td>
<td>3546</td>
<td>208</td>
<td>17.0</td>
<td>18” x 24”</td>
<td>18” x 28” x 23/4”</td>
<td>NEMA 6-20P</td>
<td>30 lbs.</td>
<td>$465.00</td>
</tr>
<tr>
<td>BF3-4500S</td>
<td>4336</td>
<td>230</td>
<td>18.9</td>
<td>18” x 24”</td>
<td>18” x 28” x 23/4”</td>
<td>NEMA 6-20P</td>
<td>30 lbs.</td>
<td>$465.00</td>
</tr>
</tbody>
</table>

Special Note: The BF4 Series is new and improved with the addition of a fan in the raceway area. This fan turns off automatically when the raceway temperature is below 120°F.

BF4-4000S 3890 230 16.9 24” x 24” 24” x 28” x 23/4” NEMA 6-20P 32 lbs. $575.00
BF4-5000S 4567 208 24.0 24” x 24” 24” x 28” x 23/4” none* 32 lbs. $595.00
BF4-5200S 5243 230 22.8 24” x 24” 24” x 28” x 23/4” none* 32 lbs. $595.00

*PLEASE NOTE: These units are supplied without plugs.

**FLOOR STANDS**

Adjustable to 48” Height - Rotate 360º
Leveling Feet and Lift Handle Included

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>DESCRIPTION</th>
<th>SHIPPING WEIGHT</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BF97-172</td>
<td>Standard duty stand - For use with BF1 &amp; BF2 Series heaters</td>
<td>30 lbs.</td>
<td>$175.00</td>
</tr>
<tr>
<td>BF97-174</td>
<td>Heavy duty stand - For use with BF3 &amp; BF4 Series heaters</td>
<td>35 lbs.</td>
<td>$200.00</td>
</tr>
<tr>
<td>BFC-10</td>
<td>Locking Caster Kit- Fits all floor stands</td>
<td>2 lbs.</td>
<td>$30.00</td>
</tr>
</tbody>
</table>

**AFFORD-A-FLASH™**

Prewired with 10 ft. cord and stand with casters included, this low cost set-up will satisfy the basic requirements for start-ups or serve as a back-up system. The Afford-A-Flash™ Series does not have an indicator light or on/off switch and no accessories or options apply. Powder coated grey.

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>WATTS</th>
<th>VOLTS</th>
<th>AMPS</th>
<th>NOMINAL ELEMENT SIZE</th>
<th>HEATER DIMENSIONS</th>
<th>PLUG TYPE</th>
<th>SHIPPING WEIGHT</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC-1600</td>
<td>1633</td>
<td>115</td>
<td>14.2</td>
<td>16” x 16”</td>
<td>16” x 20” x 2”</td>
<td>NEMA 5-15P</td>
<td>40 lbs.</td>
<td>$365.00</td>
</tr>
<tr>
<td>LC-2200</td>
<td>2175</td>
<td>115</td>
<td>18.9</td>
<td>18” x 18”</td>
<td>18” x 22” x 2”</td>
<td>NEMA 5-20P</td>
<td>40 lbs.</td>
<td>$435.00</td>
</tr>
</tbody>
</table>

**BELOW IS AN EXPLANATION OF HEATER CORD PLUGS (MALE) AND RECEPTACLES (FEMALE) AS LISTED IN THE COMPONENT SPECIFICATIONS**

**PLUGS (Male)**

- NEMA 5-15P 115V - 15 amps
- NEMA 5-20P 115V - 20 amps
- NEMA 6-20P 230V - 20 amps

**MATCHING RECEPTACLES (Female)**

- NEMA 5-15R 115V - 15 amps
- NEMA 5-20R 115V - 20 amps
- NEMA 6-20R 230V - 20 amps

---

BBC INDUSTRIES, INC.
1526 Fenpark Drive
Fenton, Missouri 63026
636-343-5600 / 800-654-4205
Fax: 636-343-3952
www.bbcind.com

We Accept:

Prices subject to change without notice

SGIA
Screenprinting & Graphic Imaging
Association International
Amaco Excel Kiln with Select Fire

The most advanced kiln control system ever is now available built-in the Excel Kilns. You can set the kiln to fire by temperature or by cone number. (automatically converts one to the other) at one of three pre-set firing programs -- slow, medium, or fast.

Model EX-1099SF Production Kiln -- Amaco's Model EX-1099 is designed for production, with a giant 9.9 cubic feet of interior volume in a giant firing chamber that is 28" in diameter and 27" deep. A true Cone 10 kiln, it must be wired directly by an electrician with a high amperage circuit and heavy gauge wiring. Use only the full 1 inch shelves for Cone 10 firing. An EZ-Ult™ lid, as well as a Select Fire™ Controller, is included. External dimensions are 36" W x 30" D x 42" H, including the width of the control box and the height of the 8" steel stand that is included. The kiln weighs 350 lbs, and shipping weight is 410 lbs; 2 year warranty.

Purchase Item

<table>
<thead>
<tr>
<th>Item</th>
<th>Mfg No.</th>
<th>Description</th>
<th>Size</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>30124-9004</td>
<td>EX-1099SF</td>
<td>Kiln with EZ-Ult, 208V-1P, 60A</td>
<td>26&quot; Dia x 27&quot; H</td>
<td>$3,840.00</td>
</tr>
</tbody>
</table>

add items to my list...

Select the list to add item(s) to:
[select a list below] add to list

Don't see your lists here? [Add or select one of your saved lists](https://www.dickblick.com/mysizeups/)

Tell me more about lists...

Saving an item or moving it to a list does not guarantee price or availability.

add items to my cart...

Your cart is currently empty.

add to cart

Ready to checkout? [Buy to any cart now][item list will not be printed][cart]

Tell me more about placing orders...

Prices, promotions, and availability may vary by store, catalog, and online.

© Amaco (brand/amaco) is a registered trademark of American Art Clay Company. © Excel and Select Fire are trademarks.
Congratulations on your purchase of a brenț® Potter’s Wheel. We trust that you will be pleased with your decision and enjoy your new wheel for years to come!

**Please read the enclosed safe operation, maintenance, and warranty information carefully.**

### DELIVERY INSPECTION | PACKAGE CONTENTS

Before signing the delivery receipt, thoroughly inspect your package. If merchandise is damaged, please make notation of the damage on delivery receipt, stating that you request an inspection by a qualified damage claim inspector. Follow up with a call to the delivery carrier, making an appointment for the inspection. At this time notify AMACO/brenț as to the extent of the damage and you will be informed upon the procedures necessary for filing a claim with the freight company.

**Do not attempt to operate the wheel if damaged.**

Package Contents:

- 1 - Wheel and Foot Pedal
- 1 - Splash Pan: two halves
- 1 - Plasti-bat
IMPORTANT SAFETY INSTRUCTIONS

Read All Instructions

- Do not overload the wheel head with clay or force it to stop, as this will shorten the life of the motor. Maximum clay weight should not exceed recommended weight for your wheel.
- Do not plug power cord into an extension cord. Plug directly into electrical wall outlet.
- Foot pedal must be fully depressed backwards “off” before turning wheel on.
- When cleaning the wheel, inspecting parts, and between periods of use, always turn off the on/off switch and confirm that the power indicator light is off. Then unplug the wheel from its power source.
- Take care with long hair, jewelry, and loose fitting clothing. Such items may get caught in the moving wheel head causing damage or injury.
- Keep tools and small parts out of reach of small children.
- Do not leave wheel running unattended.
- Repairs and modifications should be made by a qualified technician only. Should you need clarification or help troubleshooting before calling a technician, call AMACO/brent first at 800-925-5195, ext. 1303 for help and technical support.
- Stop operation of the wheel if you see or smell smoke, or if you hear unusual noises. Then turn off power, unplug power cord from outlet, and call brent® Repair for assistance.
- Do not remove the control box and panel covers when the wheel is plugged into power. Doing so makes the internal parts vulnerable to damage.
- Do not attempt to move or hold the wheel during operation, or while the power is on as this could cause serious injury.
- Place the wheel on a flat, even surface away from other objects.
- Equipment must be lifted by two people, never attempt to lift the wheel by yourself.
- Never operate the wheel with the belt guard removed.
- Disconnect the power supply whenever conducting repair.
- The socket outlet must be in the vicinity of the machine and under immediate supervision of the service personnel at all times.
- Do not let the wheel stand in water.
- Plug the wheel into a grounded (3-prong) 110 or 230 volt AC outlet, depending on your wheel’s power configuration. If you do not have grounded outlets available and have to use an adaptor, make certain that you connect the green wire from the adaptor to a suitable ground.

Note: It is not safe to operate electrical equipment around water if it is not grounded.

SAVE THESE INSTRUCTIONS
Once you've opened the carton and carefully removed your wheel:

The wheel is shipped in its table-top configuration and comes equipped with a 9-foot cord for versatility. Follow the instructions below for floor-model configuration.

1. Position the wheel on its back edge with the bottom facing you. Exercise caution not to allow the wheel to tip over as it may damage the wheel head assembly.

2. Remove the end caps from the leg stubs of the wheel (this allows the legs to be inserted into the leg stubs). Remove the foot pedal and the three (3) legs from the attached box.

3. Insert a leg into one of the two bottom leg cylinders of the main assembly until fully seated. Using the 5/16" allen wrench (provided) turn both set screws until they make contact with the leg, then tighten each screw another ¼ turn.

4. Repeat step 3 for the remaining two legs inserting the top leg last.

Note: Each leg comes with a cap plug installed in the bottom. They may loosen some during shipping. Tap them lightly with a hammer to reseat.

5. With the legs fully seated, the wheel is at the industry standard height. If you prefer, you may raise the wheel height by loosening the set screws and pulling the legs out to the desired length. Then retighten the set screws as described in step 3.

Note: Ensure that all three (3) legs are set to the same length so the wheel will sit level.

6. The wheel has an on/off switch, a fuse, and on some models, a reversing switch located on the right side of the wheel. Make sure the foot pedal is in the off position before turning your power switch on.

7. Occasionally, due to minor voltage variations, you may need to adjust the foot pedal to achieve an optimal calibration to your electrical environment. (see Troubleshooting, pages 7-8)
Tip the foot pedal towards you in the "off" position and toggle the on/off switch into the "on" position. The pilot light will come on indicating that the solid state circuit that controls the motor is receiving power. With the foot pedal tipped back, the wheel head should not rotate. As the foot pedal is pushed forward, the speed should increase smoothly, up to a maximum of 240 rpm. If the wheel does not turn off with the foot pedal back, or does not run fast enough, see Troubleshooting on page 7. All wheels except the ie model are reversible. If you wish to reverse the direction, tip the foot pedal toward you in the "off" position. When the wheel stops, move the FWD/REV toggle switch to either Forward or Reverse.

Note: When starting up your wheel for the first time, the wheel may have a slight "thump" sound. This is normal and is a result of the rubber drive belt being held in the same position since manufacturing and should go away within 10 or 15 minutes of use.
CARE

With proper care and maintenance, brent® wheels have been known to be in service for over 30 years. To insure this kind of dependability from your brent® wheel, please follow these simple care and maintenance instructions.

- Turn off and unplug wheel when not in use.
- To ensure maximum brush life, always allow the motor to come to a complete stop before changing directions of the wheel head.
- Clean wheel after every use by removing splash pan and emptying contents into slop bucket. Sponge down table and legs.
- Clean floor of any surrounding water and wet clay.
- Store foot pedal on wheel table when not in use. In addition, when mopping studio floors, foot pedals should be placed on the table top of the pottery wheel.
- Always clean wheel with a damp sponge and water, do not use solvents and do not use a hose.
- Do not let wheel stand in water or slop.
- Store in a dry space away from outdoor elements. If placing the wheel into storage, it might be beneficial to pull your motor brushes from the motor with the wheel disconnected from power, in order to avoid problems that could arise otherwise.
- Keep the serial number and the date of purchase in a safe place: you will need this information if you ever need service or want to make modifications to the wheel.

MAINTENANCE

To ensure correct belt tension and maximum belt life, all our belt drive wheels come equipped with automatic belt tensioning devices. The spring tensioner will eliminate having to tighten the belts. It’s not necessary to release the spring tensioner when removing the belt, simply roll the belt off the pulley. Check belts every five years for wear as the rubber will break down faster in some climates. To replace the belt, fit it on the small pulley first and then turn it onto the larger one.

Motor brushes should be replaced every 5000 hours of operation. This equates to a standard use of 4 hours per day, 5 days per week for 5 years.

Please contact AMACO/brent or your local pottery dealer when your brushes require replacing to receive the necessary brushes and installation instructions. Please be sure to include the serial number of your wheel and make of motor so that the correct brushes for your wheel can be obtained.
The following is a list of the most common concerns that may be experienced while using your brent® potter's wheel. Most of these difficulties occur as a result of normal "wear and tear" and can be solved with ease. Our brent® wheels have up to a ten year warranty on in-house service and parts. If you have any questions or need to order replacement parts, contact the AMACO/brent Technical Support Department at 800-374-1600.

**Note: Always unplug your wheel when it is not in use to protect against power surges and lightning storms.**

**Wheel head still rotates when pedal is off:**
1. Remove bottom of pedal. Check plastic arm to see if it is tight on the bolt that runs through it. If it is not, push plastic arm to the bottom of pedal and tighten the set screw in the base of the arm. [Fig A]
2. Turn the blue "LO" disc clockwise until wheel head stops rotating. [Fig B]

**Wheel does not rotate even though power is on:**
1. Disconnect the power supply.
2. Check the fuse and replace if blown. (See page 15).
3. If there is power to the control box and the fuse is fine, please call brent® Repair for assistance.

**Belt is rubbing against the belt guard (not applicable for je models):**
1. Lean the wheel back so that it is lying securely on its back.
2. Loosen the two bolts that hold the guard in place. [Fig C]
3. Adjust the guards until rubbing stops.
4. Tighten bolts.
5. If problem persists, please call brent® Repair for assistance.
Wheel head is not rotating, but the motor is running:
The belt is off its pulleys or has broken.
1. Disconnect the power supply.
2. Lean the wheel back so it is resting securely on its back legs.
3. Remove belt guard.
4. Place belt in middle grooves of small pulley on motor.
5. Start belt on large pulley, rotating large pulley until belt is on. [Fig D]
6. Turn wheel on and test to make sure that the belt stays on. (If belt continues to fall off, call Brent® Repair for assistance.)
7. Reinstall the belt guard.

Wheel head rotates too fast or too slow:
1. Turn foot pedal over and remove the bottom plastic cover from the pedal.
2. Locate the red disc, this is the “HI” speed adjustment.
3. Using a small standard screwdriver, rotate the red disc clockwise to increase the speed, or counter-clockwise to decrease the speed.
4. Any adjustments to the red disc may result in having to make an adjustment to the blue disc. If you increase the overall speed of the wheel, you may have to turn the blue disc clockwise to make the wheel stop when the pedal is moved to the off position. If the wheel speed is decreased, you may have to turn the blue disc counter-clockwise to increase the range of motion when the foot pedal is moved to the off position.

Note: The discs are very sensitive and will require very little movement, 1 to 5 degrees at a time. The wheel be can on and rotating while making this adjustment to ensure that the start point is at the desired speed. Please note that if your screwdriver touches the silver tabs between the red and blue discs, while the wheel is connected to power, this could result in a blown circuit board.
WARRANTY INFORMATION

TERMS
The brent® potter’s wheels warranty is limited to defects in materials and workmanship during the manufacturing process for up to ten years (see chart below).
- Ultimate determination for validation of warranty claims is at the discretion of AMACO/brent.
- All warranty work must be performed by an authorized brent® dealer or by the manufacturer to maintain the warranty. Any work done by someone other than an authorized dealer or the manufacturer will void this warranty.
- Warranty is non-transferable.
- Retain original purchase receipt. You will need this along with model number and serial number to obtain warranty service.
- The warranty is in effect from the date of purchase and is as follows:

<table>
<thead>
<tr>
<th>EQUIPMENT</th>
<th>WARRANTY LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>brent® b, c, cxc, EX, j, ej, 16 Potter's Wheels purchased after 01/01/2009</td>
<td>10 Years</td>
</tr>
<tr>
<td>brent® ie, ie-r, ie-x Potter's Wheels purchased after 01/01/2011</td>
<td>5 Years</td>
</tr>
</tbody>
</table>

EXCLUSIONS
Your AMACO/Brent Warranty will be void if any of the following occur:
- The warranty period has expired.
- Repair or service is done by an unauthorized dealer.
- Damage due to abuse and/or misuse; including but not limited to improper installation, rough handling, improper storing.
- Shipping damage.
- Damage or failure due to acts of God such as, fire, flood, electrical storms, etc.
- Use other than for intended.
- Normal wear and tear on parts such as wheel heads and belts.
- Modifications to the unit in any manner.

REPAIR INSTRUCTIONS
If you have a problem with your brent® wheel within the warranty period, choose one of the following options:
1. Contact the dealer from which you purchased the wheel. If they are an authorized dealer that offers parts and service, they can handle the repair or replacement. Parts and labor will be covered for valid warranty claims.
2. If the dealer is unauthorized to perform the repair or unable to correct the problem, call AMACO/brent customer service, (800) 374-1600 or email technicalsupport@amaco.com. Please have the model and serial number ready when you call or include them in the email. The serial number, located on a sticker underneath the wheel, will help the technician know when your wheel was built to better assist you (see photos below). Parts and labor will be covered for valid warranty claims.

Models B, C, CXC, EX, 16
Models ie, ie-r, ie-x

You may be asked to send the defective equipment or part(s) in for inspection. The serial number of the wheel being repaired must accompany the defective parts for the warranty to be honored. Also include a note describing the nature of the problem. This will save the technician time since many problems are intermittent and may not show up immediately. Parts and labor will be covered for valid warranty claims.
If it is necessary to ship the wheel or parts to AMACO/brent for inspection, repair or replacement, the technician will explain how to return the defective item(s) and whether it should be sent prepaid. For your protection, insure all items shipped.
brent® Booties  
Set of three Leg risers to raise your wheel 2" or 4". Product No. 22785E

brent® Workstation  
Attaches to rear legs of brent® wheels. Holds tools and other supplies while throwing. Height adjustable. Product No. 22878N

brent® Leg Extensions  
New, improved design. Legs adjust from 32½" to 37½" in ½" increments. Product No. 22827X

brent® WorkTables  
Two sizes: 16" x 10" or 1" x 10". Each attaches to rear legs of brent® wheels and can be rotated or raised/lowered for custom fit. Available individually or as a set. Product No. 22879P

Plast-i-bat®  
Easy to clean, waterproof, won't swell or shrink, made of thick, rigid plastic. 8 sizes; with and without bat pin holes.

brent® Black Splash Pan  
Same sturdy material and easy to clean as the original gold splash pan that comes with all brent® wheels. Product No. 22930B

brent® Batmobile  
Stores up to 90 bats (14" diameter), easy to assemble, 4" locking rubber casters, welded joints for stability. Product No. 22066J

AMERICAN ART CLAY CO., INC.  
6060 Guion Road, Indianapolis, IN 46254-1222 USA  
(800) 374.1600 • www.amaco.com  

Amaco® and Brent® are registered trademarks of American Art Clay Co., Inc.
<table>
<thead>
<tr>
<th>Item #</th>
<th>Qty.</th>
<th>Part #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>32331K</td>
<td>for IE &amp; IE-R Models</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>22135X</td>
<td>Bat Pin</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>Item 2 &amp; 3 sold as set</td>
<td>Bat Pin Wing Nut</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>22012M</td>
<td>for IE &amp; IE-R Models</td>
</tr>
<tr>
<td>4a</td>
<td>1</td>
<td>22017T</td>
<td>for IE-X Models</td>
</tr>
<tr>
<td>4b</td>
<td>1</td>
<td>22017F</td>
<td>Wheel Head Assembly</td>
</tr>
<tr>
<td>4c</td>
<td>1</td>
<td>22017G</td>
<td>Wheel Head Shaft &amp; Bearing</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>5/16-18 x 1 1/2 Hex Bolt</td>
<td>Wheel Head Mounting Bolt</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>5/16-18 Flange Nut</td>
<td>Wheel Head Mounting Nut</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>5/16-18 X 1 3/4 Flat Head Slotted Machine Screw</td>
<td>Table Top Mounting Bolt</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>5/16-18 Flange Nut</td>
<td>Table Top Mounting Nut</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>22281F</td>
<td>Splash Pan Front</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>Items 9 &amp; 10 sold as a set</td>
<td>Splash Pan Back</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>08024R</td>
<td>Table Top IE Black</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>08209A</td>
<td>Steel Frame</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>22048J</td>
<td>Large Drive Pulley</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>5/16-18 x 5/8 Square Head</td>
<td>Drive Pulley Lock Bolt</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>3/16 x 1 1/4 Key Stock</td>
<td>Drive Pulley Shaft Key</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>22766F</td>
<td>Drive Belt</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>08770R</td>
<td>Belt Guard</td>
</tr>
<tr>
<td>18</td>
<td>4</td>
<td>1/4-20 x 3/4 Hex Bolt</td>
<td>Belt Guard Screws</td>
</tr>
<tr>
<td>19</td>
<td>1</td>
<td>22689H</td>
<td>for IE &amp; IE-R Wheel</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>22765E</td>
<td>for IE-X Wheel</td>
</tr>
<tr>
<td>21</td>
<td>1</td>
<td>22626X (set screw included)</td>
<td>Motor Drive Pulley (Small Pulley)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1/4-20 x 1/4 Allen Set Screw (included with motor pulley part #22637V)</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>6</td>
<td>1/4 Fender Washer</td>
<td>Motor Mounting Fender Washer</td>
</tr>
<tr>
<td>23</td>
<td>4</td>
<td>5/16-18 Flange Nut</td>
<td>Motor Mounting Flange Nut</td>
</tr>
<tr>
<td>24</td>
<td>2</td>
<td>22306M</td>
<td>Motor Mounting Bushing</td>
</tr>
<tr>
<td>25</td>
<td>1</td>
<td>22134W</td>
<td>Fuse Holder</td>
</tr>
<tr>
<td>26</td>
<td>1</td>
<td>08780C</td>
<td>Reversing Switch (IE-R &amp; IE-X only)</td>
</tr>
<tr>
<td>27</td>
<td>1</td>
<td>22117A</td>
<td>Power Switch</td>
</tr>
<tr>
<td>28</td>
<td>1</td>
<td>22140R</td>
<td>PCB Controller</td>
</tr>
<tr>
<td>29</td>
<td>4</td>
<td>#6 1/2&quot; Pan Head Phillips Screw</td>
<td>PCB Controller Screws</td>
</tr>
<tr>
<td>30</td>
<td>3</td>
<td>22822A</td>
<td>1E Leg</td>
</tr>
<tr>
<td>31</td>
<td>3</td>
<td>22695P</td>
<td>Frame Leg Plug</td>
</tr>
<tr>
<td>32</td>
<td>6</td>
<td>6-20, 1/2&quot; Self-Tapping Screw</td>
<td>Leg Extension Set Screws</td>
</tr>
<tr>
<td>33</td>
<td>1</td>
<td>22035R</td>
<td>Foot Pedal complete</td>
</tr>
<tr>
<td>34</td>
<td>1</td>
<td>22278C</td>
<td>Foot Pedal Tension Hardware &amp; Arm</td>
</tr>
<tr>
<td>35</td>
<td>4</td>
<td>2273W (Mtg. Screws Included)</td>
<td>Foot Pedal Foot</td>
</tr>
<tr>
<td>37</td>
<td>1</td>
<td>08420B</td>
<td>Foot Pedal Cord</td>
</tr>
</tbody>
</table>
Wheel Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>HP</th>
<th>Wheel Head</th>
<th>Slow Burn Fuse Size</th>
<th>Voltage</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ie</td>
<td>1/4</td>
<td>12&quot;</td>
<td>6 amp</td>
<td>120</td>
<td>22833M</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6 amp</td>
<td>230</td>
<td>22800X</td>
</tr>
<tr>
<td>ie-er</td>
<td>1/4</td>
<td>12&quot;</td>
<td>6 amp</td>
<td>120</td>
<td>22897M</td>
</tr>
<tr>
<td>ie-x</td>
<td>1/3</td>
<td>14&quot;</td>
<td>6 amp</td>
<td>120</td>
<td>22900R</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6 amp</td>
<td>230</td>
<td>22901P</td>
</tr>
<tr>
<td>B</td>
<td>1/2</td>
<td>12&quot;</td>
<td>20 amp</td>
<td>120</td>
<td>22604E</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>25 amp</td>
<td>230</td>
<td>22606G</td>
</tr>
<tr>
<td>C</td>
<td>3/4</td>
<td>14&quot;</td>
<td>20 amp</td>
<td>120</td>
<td>22608J</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>25 amp</td>
<td>230</td>
<td>22610L</td>
</tr>
<tr>
<td>CXC</td>
<td>1</td>
<td>14&quot;</td>
<td>20 amp</td>
<td>120</td>
<td>22727G</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>25 amp</td>
<td>230</td>
<td>22728H</td>
</tr>
<tr>
<td>EX</td>
<td>1 1/2</td>
<td>14&quot;</td>
<td>25 amp</td>
<td>120</td>
<td>22573A</td>
</tr>
<tr>
<td>16</td>
<td>1/2</td>
<td>12&quot;</td>
<td>20 amp</td>
<td>120</td>
<td>22666E</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>25 amp</td>
<td>230</td>
<td>22613P</td>
</tr>
</tbody>
</table>

Fuse Location

USE SLOW BURN FUSES ONLY

The ie series wheels have the fuse located on the side of the wheel, near the power switch. To replace the fuse of a B, C, CXC, EX, and/or No. 16 Wheel, refer to the diagram below.

CAUTION: UNPLUG THE WHEEL PRIOR TO REPLACING THE FUSE!

Unplug the wheel.
Remove (4) screws from the power cable side of the control box. The fuse will be behind the cover. Carefully remove the fuse, a tool may be needed to gently pry the fuse out of the socket.
Match circled numbers on this page to item numbers on page 13 for part description.