USER MANUAL

UNIQUE MACHINE & TOOL CO.

Manufacturers of Woodworking Equipment

Since 1969 ... "The UNIQUE Way"

PROFIT THROUGH AMERICAN TECHNOLOGY
WOOD MACHINERY MANUFACTURERS OF AMERICA
MEMBER

250 MC

Read and understand this manual before using machine.

Unique Machine and Tool
4232 E. Magnolia
Phoenix, AZ 85034

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Company Introduction

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A Message from our Vice President

Unique Machine & Tool Company has been manufacturing industrial machinery for the woodworking industry since 1969. Unique is known for building quality products that dramatically improve the efficiency and productivity of both small and large companies around the world.

Now using the latest in computer aided design and manufacturing technologies, our engineering and manufacturing teams are setting new standards for precise, reliable, cost effective machinery. The loyal customer testimonials throughout the world prove that Unique machinery will improve your companies profitability and productivity.

Unique machines produce kitchen cabinet doors, entry doors, and related parts. The machines range from manually operated clamp tables and sanders to computer-controlled cabinet door-making equipment. We encourage you to contact us for more information or where you can see demonstrations of our equipment either at trade shows, stocking distributors or our Phoenix, Arizona factory.

Special applications require **"UNIQUE SOLUTIONS".**

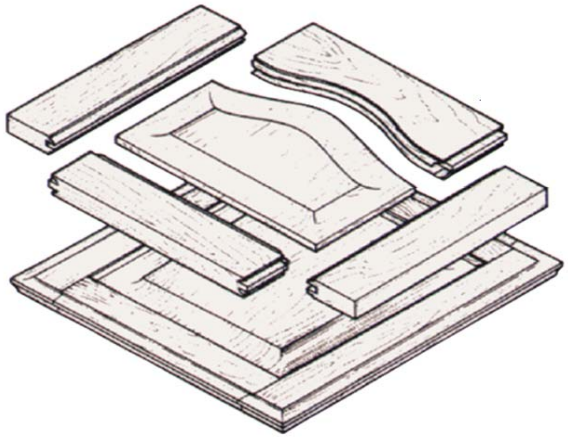
Sincerely,

Kevin Brandon

Machine Introduction

This instruction manual is intended for use by any one working with this machine. It should be kept available for immediate reference so that all operations can be performed with maximum efficiency and safety.

250



Machine Purpose:

The 250MC is the "all in one" cell door manufacturing machine. Allowing one operator to make all five components of a raised panel door in less than two minutes.

How Your Machine Functions:

To operate the 250MC all the operator has to do is load the corresponding part of the door into the machine and move the sliding table from right to left.

Definition of Terms

(This section is for defining terms used in the manual, especially terms relating to safety and terms that may not be familiar.)

Arbor	A stub shaft on a machine to turn blades or other cutting wheels.
Band Saw	A saw with a looped blade running around two or three wheels. Used with narrow blades for cutting freehand shapes, and with wider blades and a guide for resawing material.
Board Foot	Measurement of lumber equal to one square foot an inch thick or 144 cubic inches. Multiply width in inches X length in inches X thickness in inches, divide by 144 for total board feet.
Calliper	An insturment with two legs, one of them sliding, used to measure the thickness of objects.
Carbide Tipped	Extremely hard steel pieces with sharp cutting edges fastened to cutting tools such as saw blades, and router bits.
CW	Clockwise Rotation
CCW	Counter Clockwise Rotation
Climb Cutting	Clockwise tool rotation feeding from right to left
Collet	A type of chuck that accepts a fixed shaft size, commonly used on routers.
Conventional Cutting	Counter clockwise rotation feeding from right to left. Also called power cutting
Cope	The male tounge joining part of a raised panel door.
Cupping	This is when the edges of a board bend with the grain away from the center to form a concave shape
Dial Gauge	This measuring instrument has a circular graduated face and a pin which activates a rotating pointer to measure variation in movement in thousands of an inch.

Definition of Terms

(This section is for defining terms used in the manual, especially terms relating to safety and terms that may not be familiar.)

Edge Detail	The outside edge design on a raised panel door.
Emergency Stop Devices	Buttons or other devices used for emergency stopping. This stop system will disconnect all power from machine and the initial start up sequence must be followed to restart machine.
Fence	A straight guide on a tool such as a table saw or router t table to keep the material a set parallel distance from the blade or cutter.
Flammable	Any material that will burn and/or could have the potential to explode.
Grain	The appearance, size and direction of the alignment of the fibres of the wood.
Infeed	The side of a power tool where a board enters.
Interlocks	An electrical device that stops the machine if guard is moved from protective position.
Jig	A device used to hold work or act as a guide in manufacturing or assembly.
Jump Cope	First of two shapers "jumps" out after begining a cut so that a second shaper can finish, eliminating tearout on endgrain.
Kick Back	This is when a workpiece is thrown back by a cutter, prevented using anti-kick back devices on power tools such as table saws.
Machine Specifications	A description of the machine and equipment on/with the machine.
MDF	Medium density fiberboard, very stable underlay for counter tops etc. to be covered with laminate.
Ogee	An S shape that is made by making one cut to produce two identical pieces.

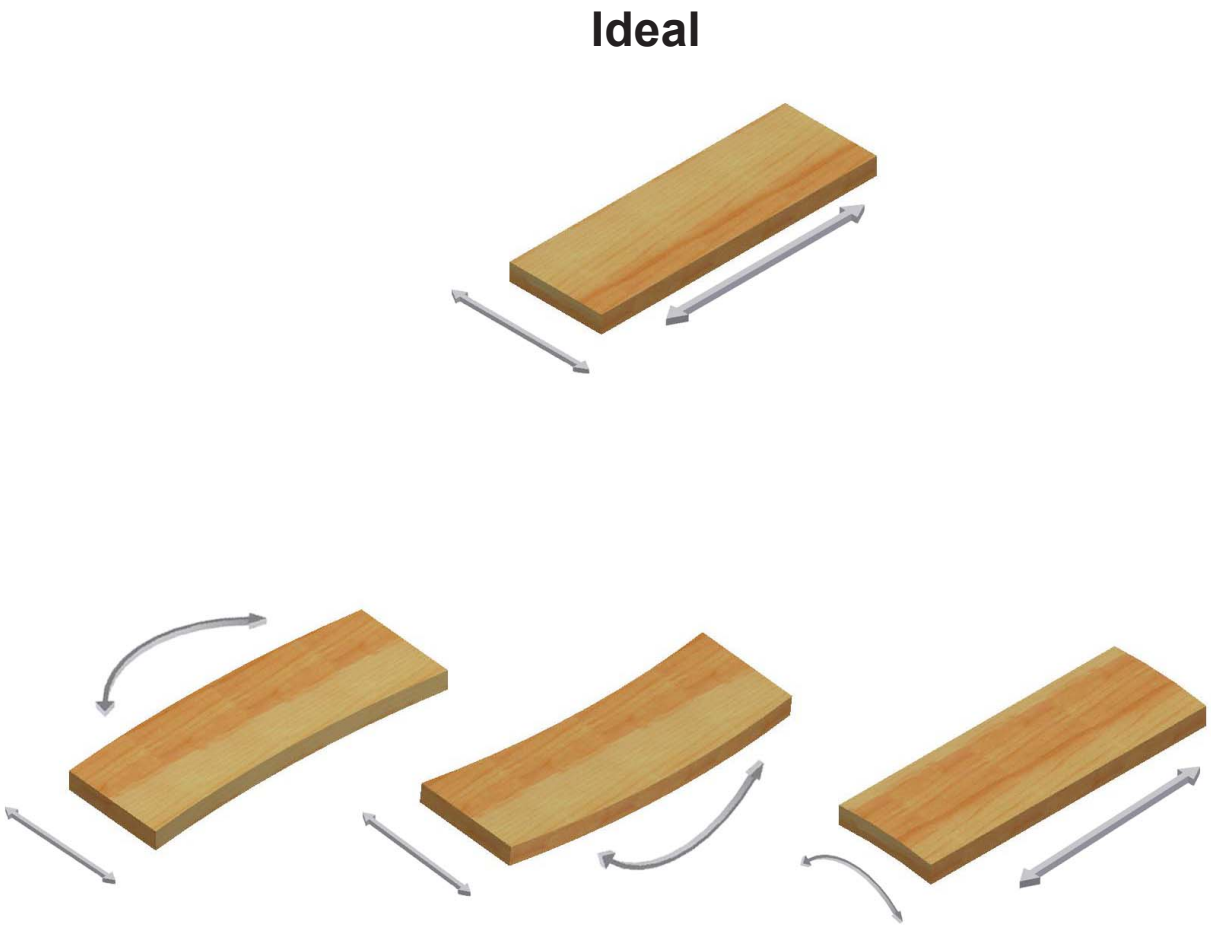
Definition of Terms

(This section is for defining terms used in the manual, especially terms relating to safety and terms that may not be familiar.)

Preventive Maintenance	A program of inspecting the machine and servicing worn parts before the machine fails.
Rail	The female joining part of a raised panel door, also called the stile.
RPM	Rotations Per Minute
Router	Basically a high speed motor with handles and an adjustable base with a collet that accepts profile bits to cut dados, rabbets, or shapes.
Shaper	A machine with an interchangable rotary cutter head to cut profile shapes on the edge or face of material.
Snipe	The tendency to gouge the trailing end of material when running it through a joiner.
Style	A vertical member of a door framework attached to the horizontal rails.
Tearout	The tendency to splinter the trailing edge of material when cutting across the grain.
X-Axis	As the operator faces the machine the left and right direction
Y-Axis	As the operator faces the machine the vertical axis
Z-Axis	As the operator faces the machine the in and out axis

Wood Quality

Wood quality can greatly effect the quality of the finsihed product. It is important to start with good quality wood as outlined in the diagarm below



Wood should be flat straigth and devoid of defects. Any nots in the wood could damage the carbide inserts of a cutter head. Materials that are warped, bent, twisted or cupped will not produce a quality finished product.

Manual Contents Notice

This manual is not completely;comprehensive. It does not and can not convey every possible safety and operational problem which may arise while using this machine. The manual will cover many of the basic and specific safety procedures needed in an industrial environment.

All federal and state laws and any regulations having jurisdiction covering the safety requirements for use of this machine take precedence over the statements in this manual. Users of this machine must adhere to all such regulations.

As an aid to the users of this machine, a number of such regulations that were in effect at the time this manual was written, are listed below. This list does not include all regulations that may apply.

Most national and international standards that may apply to your machines and accessories contain requirements for manuals. These change from time to time and will require constant monitoring to assure that your products and manuals are in compliance.

Underwriters Laboratories Inc. standard's are not considered on stock machines. UL requirements are determined on a regional basis and the necessity of UL specifications are the responsiblity of the customer. The machine can be configured to meet UL specifications at time of purchase only, for an additional charge.

Standards Reference (Partial List)

Publication Number	**(examples)**
• 26 CFR 1910.213	Occupational Health & Safety Act – Woodworking Machinery
• ANSI 01.1–1992	American National Standards Institute–Woodworking Machinery
• ANSI 01.1–1992	American National Electrical Standard–Woodworking Machinery

Types of Warnings

This is the safety alert symbol. It is used to alert you to potential personal injury hazards.

Obey all safety messages that follow this symbol to avoid possible injury or death.

DANGER in white letters on a safety red background with a safety red exclamation point.

This indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.

WARNING in black letters on a safety orange background with a safety orange exclamation point.

This indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.

CAUTION in black letters on a safety yellow background with a safety yellow exclamation point.

This indicates a potentially hazardous situation which, if not avoided, **COULD** result in minor or moderate injury.

CAUTION as above, but without the safety alert symbol.

This indicates a potentially hazardous situation which, if not avoided, **COULD** result in property damage.

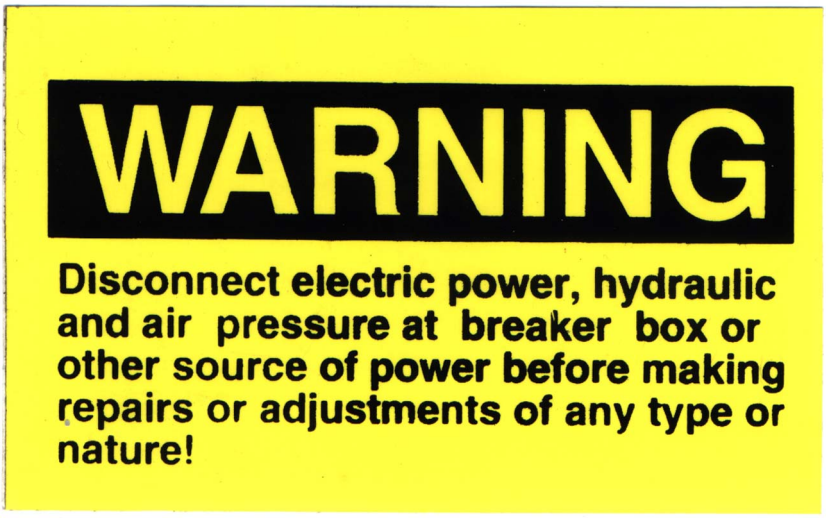
General Safety Rules for Machine Operators and Persons in Operating Area

WARNING

- Read and understand manual before operating machine.
- Wear eye protection.
- See the plant supervisor to determine what protective equipment each job requires.
- Follow electrical and fire codes.
- Avoid **HOT** machine components.
- Do **NOT** wear loose clothes, jewelry or long hair around operating equipment.
- Lockout/Tagout electrical power before servicing.
- Provide adequate ventilation. Check with manufacturer of materials for ventilation recommendations.
- Do **NOT** smoke, use unsafe drop cords or portable electrical tools in a hazardous dust/vapor area.
- Do **NOT** climb, sit or stand on machine.
- Keep guards in protective position when machine is running.
- Use safety strap to avoid tip over when lifting.
- Do not operate this machine unless there is 90 lbs on the pressure gauge on the gauge located on top of the control panel.
- Tantung cutters are not recommended for any synthetic (man-made) material. This includes MDF, Plywood, Laminates, Plastics, Etc.
- Inspect cutter rotation to insure that the cutters are rotating in the direction the tooling is designed for.
- Use only original factory parts for replacement due to damage or normal wear.
- Electrical interlocks must be kept clean and properly adjusted. Never bypass or override the interlock system.
- Keep hands away from operating machine.
- Keep the work area and machine clean.

Machine Safety Decals

The following warning decals are some that are used on your machine.



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Receiving, Inspection, & Unpacking

Inspect the shipping crate for shipping damage before removing the machine from the crate.

If crate or machine damage is found, notify the shipping company immediately.

Uncrating Instructions:

1. Remove the upper crating materials from the base skid.

2. Remove lag screws, strapping, etc. that is attaching the machine to the skid.

3. Lift the machine at the indicated lift points only.

   Use a safety strap to avoid tip over when lifting machine.

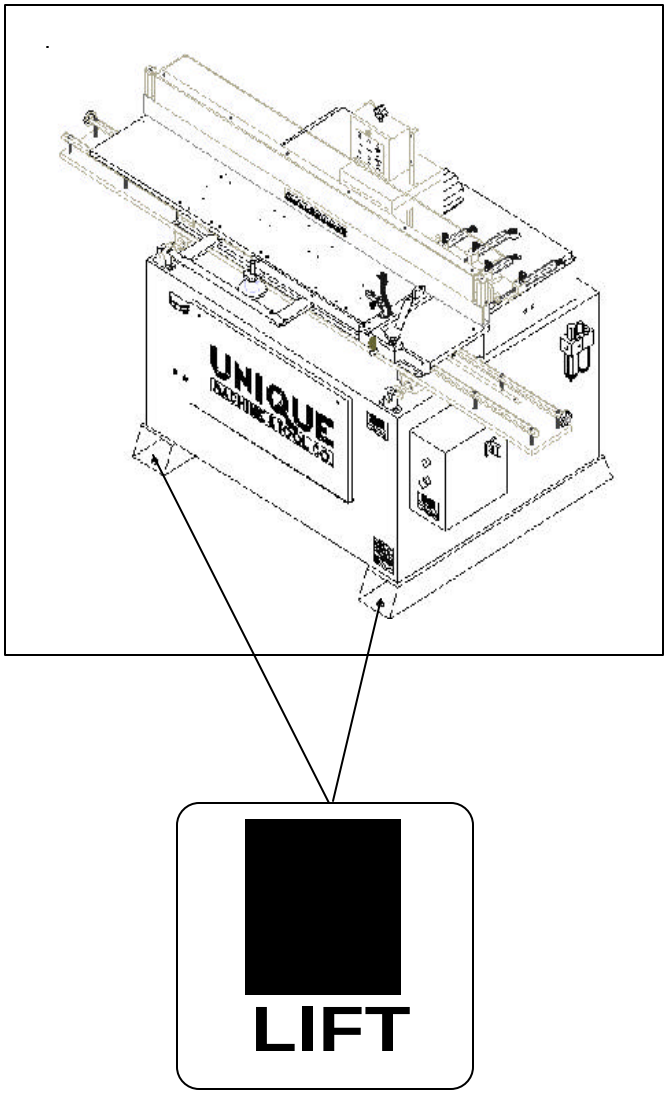
4. Move the machine off of the skid. (If other lifting methods are preferred, contact the factory for lifting recommendations.)

5. Transport machine to the installation site.

Approximate Machine Weights:

950 lbs.

Typical Lift Points



Location, Space Allocation, & Alignment

For greater efficiency, better operation and lower maintenance costs, allow adequate space for clean-up, maintenance, product handling and operation.

Lifting Instructions:

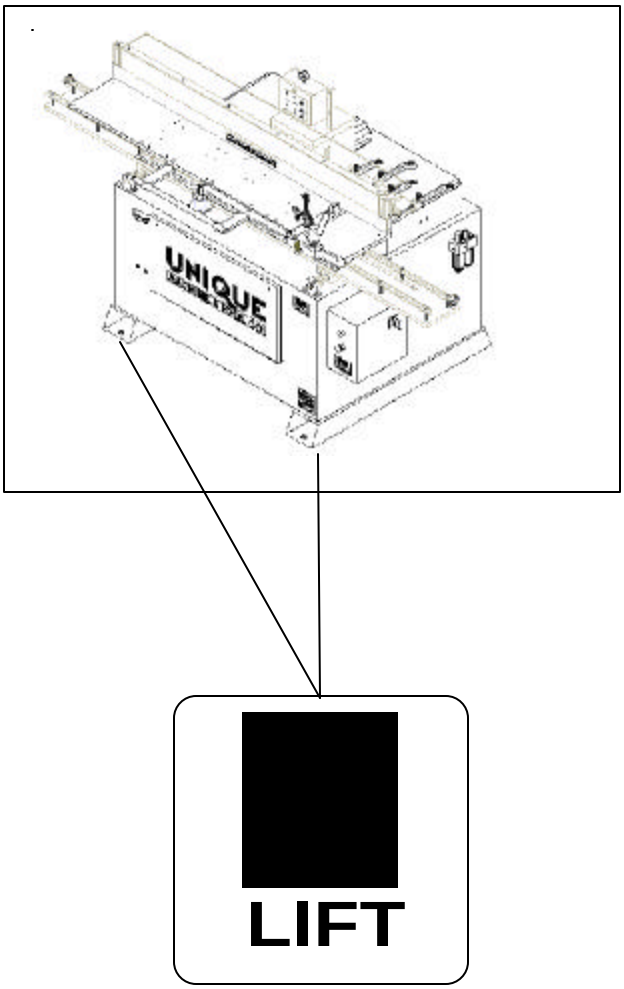
Use a safety strap to avoid tip over when lifting machine.

The machine should be lifted at the indicated points only.
(If other lifting methods are preferred contact the factory for lifting recommendations.)

Decide on the method to be used for maintenance **BEFORE** you decide on the exact location for your machine.

- If machine is to be equipped with casters or other means of easy moving, it can be moved into an open area for maintenance.
- If it is to be placed in a fixed area, maneuverability of hoisting equipment should be considered.
- If infeed and/or outfeed conveyors are to be used, removable or hinged sections may be used for access to both sides of the machine.

Typical Lift Points



Alignment Instructions:

Location, Space Allocation, & Alignment - Continued

When there are two or more machines handling the same product and transferring it from machine to machine the alignment is critical.

It is helpful to chalk a line on the floor at the intended center of the production line.

1. Locate the center of the product pass-line on each machine.

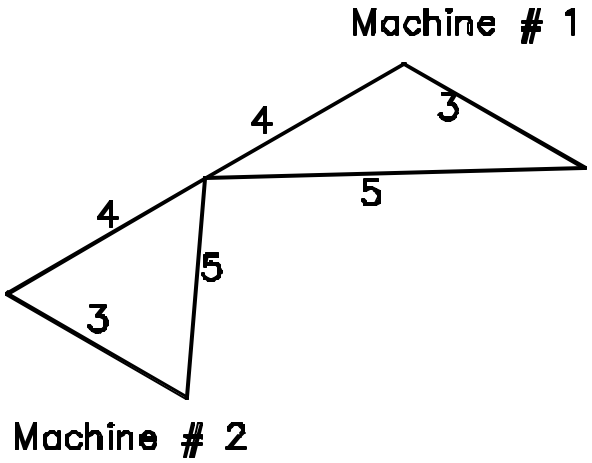
2. Stretch a line through all of the machines and center them.

3. Level machine from infeed to outfeed and side to side.

4. Level production line as much as possible from end to end. If floor is not level, shim machines so the height difference from machine to machine is not excessive.

5. Use a large framing square to measure and adjust the machines on the center line until the machine line is straight and square.
If a large square is not available you might want to use the 3-4-5 triangle system as illustrated to achieve a straight and square machine alignment.

3-4-5 Triangle Method



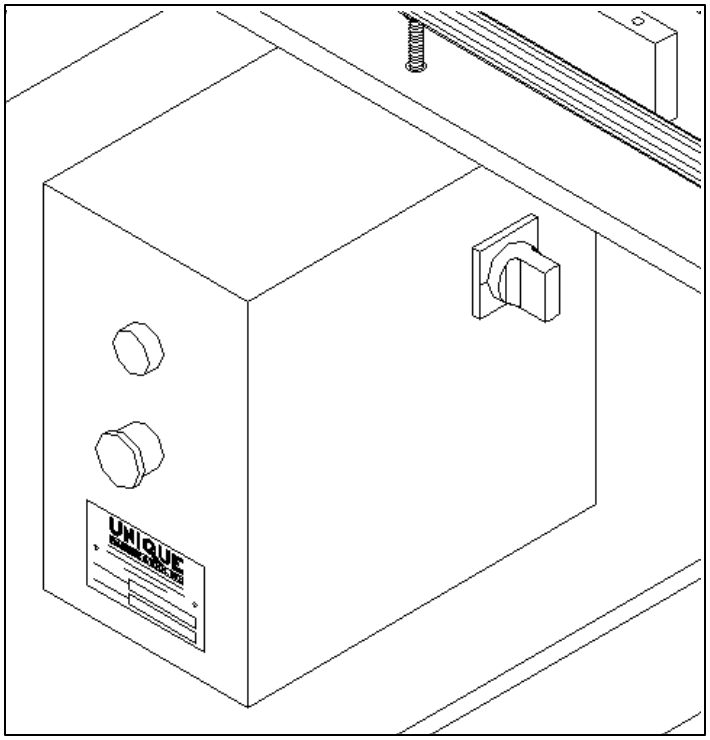
Base:

1. Place machine on a solid floor.

2. Level machine when positioned correctly.

Ventilation:

Ventilation & Power Connections



The need for ventilation varies with materials used and plant operating conditions. Be sure to provide adequate ventilation.

Do NOT allow excessive build up of fumes.

(Check with manufacturer of materials for ventilation recommendations.)

Electrical Codes:

Be sure to follow applicable electrical codes. Be sure machine is properly grounded.

Solvents:

If flammable solvents are to be used, make certain your machine is equipped with explosion proof electrical components, that all seal fittings are properly sealed before use and that ventilation and fire safety codes are met.

Pneumatic Connections:

It is the customers responsibility to provide a clean dry air supply to the machine. The supply should be equipped with a shut off valve and a pressure regulator.

OPERATOR TRAINING

According to many **OSHA, ANSI, STATE,** and **LOCAL CODES,** it is the ***Employers Responsibility*** to:

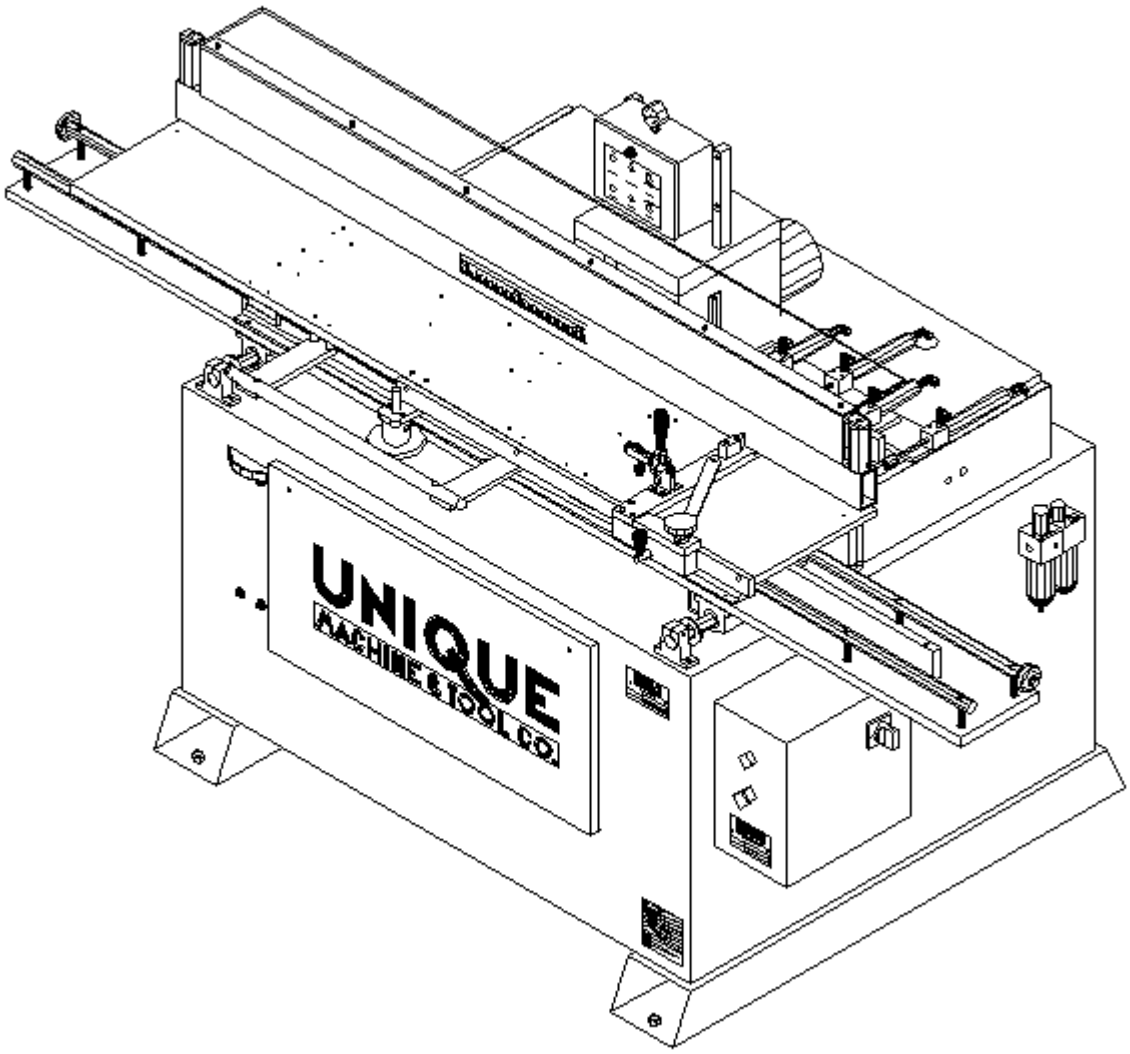
- ***Permit only*** trained and authorized employees to operate equipment.
- ***Inspect and maintain*** guards, safety devices and start/stop controls.
- ***Instruct, train and supervise*** the safe method of work.

This machine has been designed to eliminate the need for hands and arms to be near moving machine parts.

Be sure personnel are properly trained and safety rules are clearly understood **before** operating or performing maintenance!

• ***Operator*** • ***Machine*** • ***Guards*** • ***Devices*** • ***Instructions***	These **all together** make up the safety system. Failure of **any one** of these factors will increase accident potential.

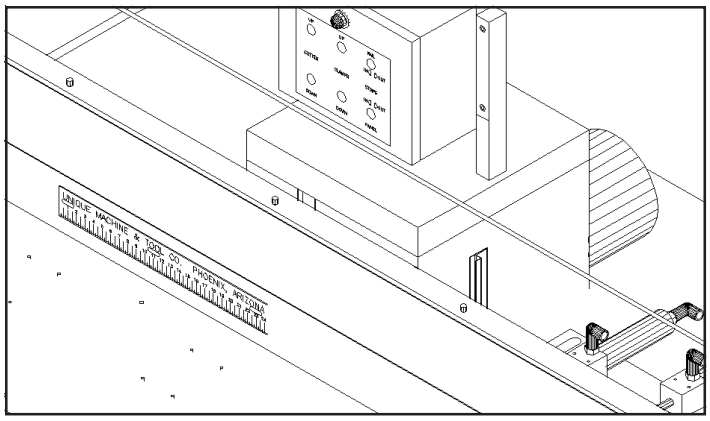
Typical Machine



Infeed View

Safety Features & Interlocks

Test all controls frequently - If not in proper adjustment, do **NOT** use machine until it is repaired.



Machine Guards
Check and assure that all safety guards are properly installed prior to operating this machine.

Interlocks:

Machines equipped with electrical inter locks must operate only when guards are in their protective position.

Cleaning, frequent inspection and testing are essential.

Bypass or override of the interlock must be forbidden.

To test, move guard away from its protective position while the machine is stopped - attempt to start the machine taking care of exposed hazards with the guard removed, if the machine starts, do **NOT** use machine until repair is completed

If machine functions properly, place guard in protective position and follow the machine start sequence to begin production.

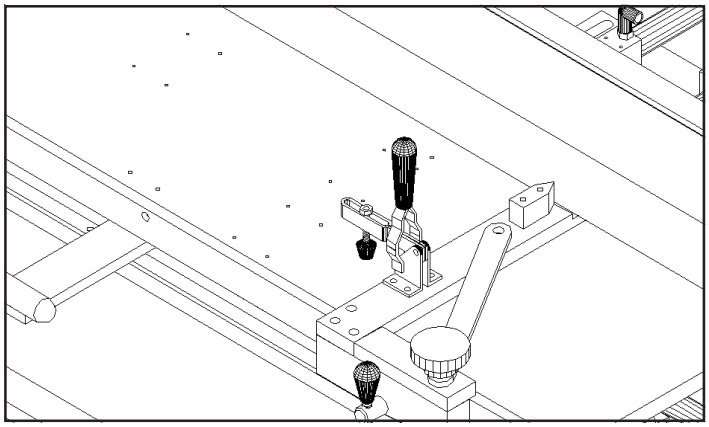
Product Feeding

Keep guards in protective position when machine is running.

Do **NOT** wear loose clothes, jewelry or long hair around operating equipment.

Stock is loaded into the machine against the squaring fence and pushed in against the stops. Extra care must be used to keep hands away from machine when small dimension stock is fed.

DO NOT USE HANDS to pull small dimension stock away from machine.

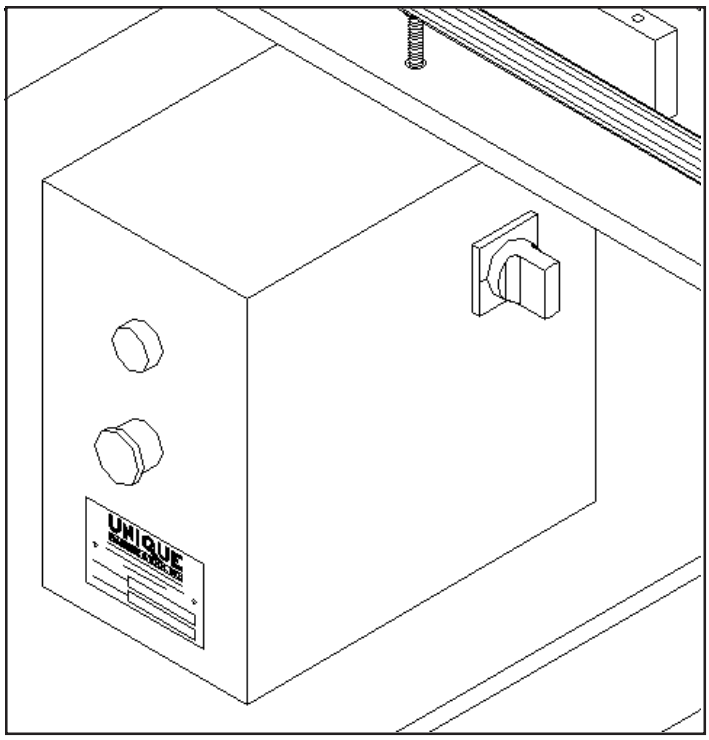


General Start & Stop Instructions

Your machine can be controlled with the control panel.

Start :

1. Turn "ON" electrical disconnect switch.
2. Turn the emergency stop to the right until it disengages.
3. Press the green start button.



Stop:

1. To stop the machine press the E-stop button

Emergency Stop:

- The machine is equipped with an E-Stop button - push the "E-Stop" button.
- Turn off disconnect switch for full E-Stop.

To restart:

Follow the **Start (Forward)** steps.

Set-Up for Production

DOOR DESIGN:

The standard raised panel door is composed of five different sections.
The following is an example of a finished door that is 10" wide and 12" high with no arch.

A – Top Rails –2-1/2" x 6"
B – Stiles – 2-1/2" x 6"
C – Bottom Rail – 2-1/2" x 6"
D – Panel – 5-7/8" x 7-7/8"

Start Machine:

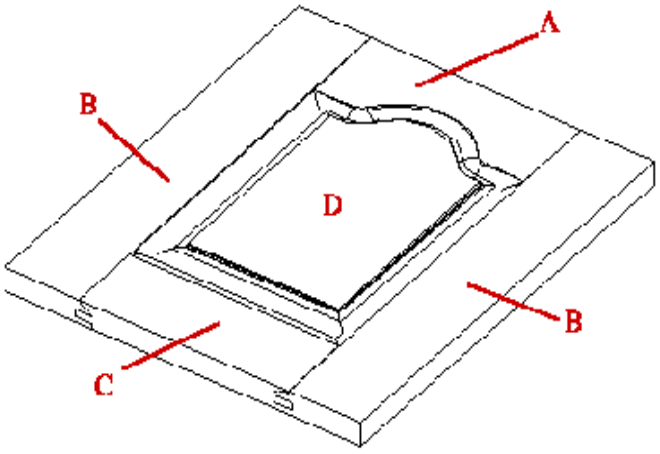
1. Turn "ON" electrical disconnect switch.

2. All guards must be in protective position.

ARCHED DOOR DESIGN:

The standard raised panel door is composed of five different sections.
The following is an example of a finished door that is 10" wide and 12" high with an arched top.

A – Top Rails –3-3/4" x 6"
B – Stiles – 2-1/2" x 6"
C – Bottom Rail – 2-1/2" x 6"
D – Panel – 5-7/8" x 7-7/8"



Start Machine:

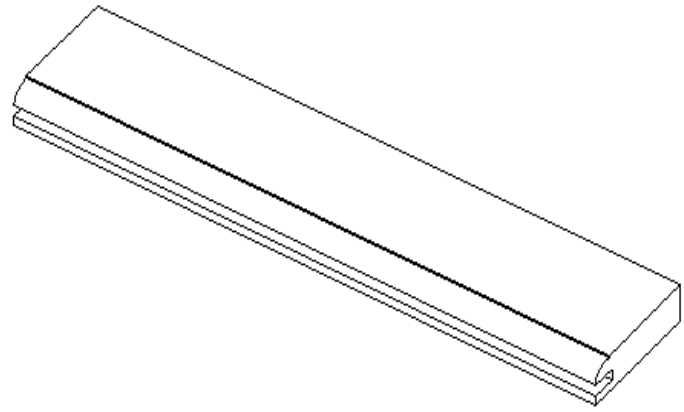
1. Turn "ON" electrical disconnect switch.

2. All guards must be in protective position.

Set-Up for Production

STILE CUTTING

The stiles are the vertical boards that hold the door together

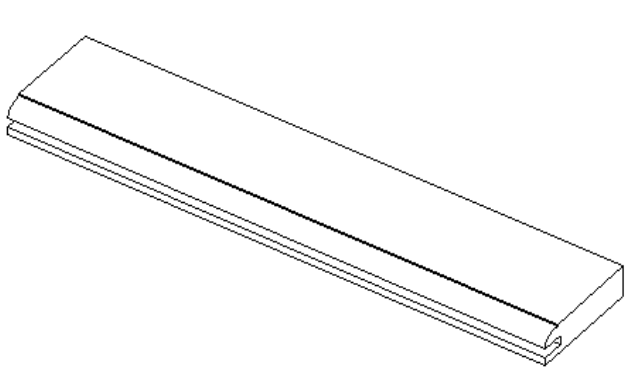


Cutting Standard Stiles or Sides

1) Template roller FULL UP
2) Raise the cutters to the FULL UP
3) Select the rail cutter on the turret position selector.
4) Lower the cutter until it contacts the turret.
5) Switch rail/cope stops OUT.
6) Push carriage forward, against MAIN STOPS
7) Place stile against stops and clamp
8) Switch rail/cope stops IN
9) Move carriage to left to cut.

RAIL CUTTING

The rails are the horizontal boards that hold the top and bottom of the door together.



Cutting Standard Rails

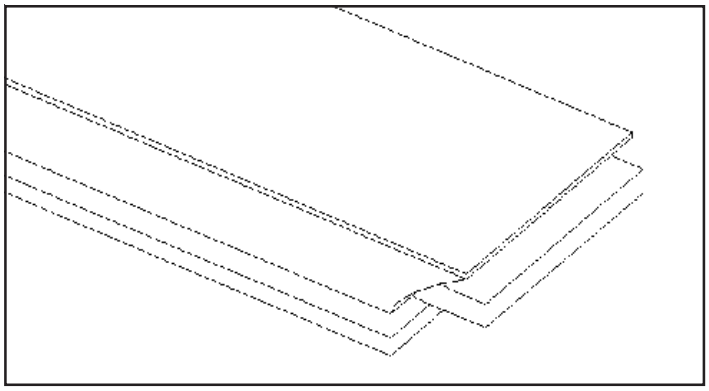
Use the same method as stile cutting.

COPE-STICKING ENDS OF RAILS

It is necessary to cope the ends of the rails to allow them to fit into the stiles.

Cutting Cope-Sticking

Raise cutter to full up and set the turret to cope position and lower the cutter.



1) Slide the fence to center of table
2) Lock squaring fence in place.
3) Push carriage against stops.
4) Place rails against fence and fixed stops.
5) Clamp and cut by moving carriage to left.

⚠ On hardwoods, a wood backer should be inserted to prevent splitting at end of cut.

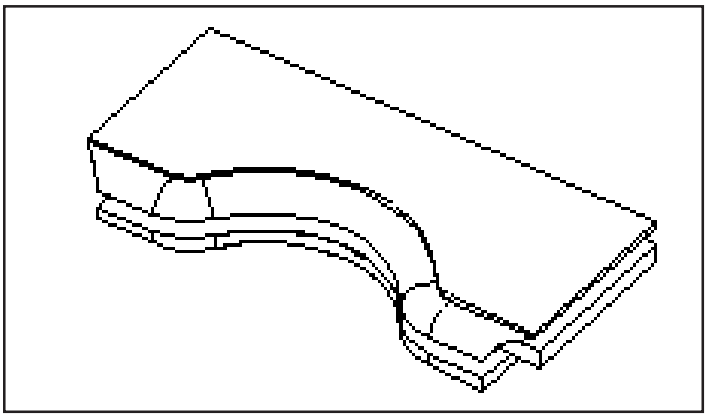
⚠ Do not use backer board that is thicker than the piece to cut. Any backer board must be clamped or locked into position, or cutter damage can occur. Do not attempt to cut more that one piece at a time.

NOTE: See section 4-15 for more information on backer boards.

Set-Up for Production

CATHEDRAL RAIL CUTTING

This is the top rail that is cut with a recess for a decorative panel



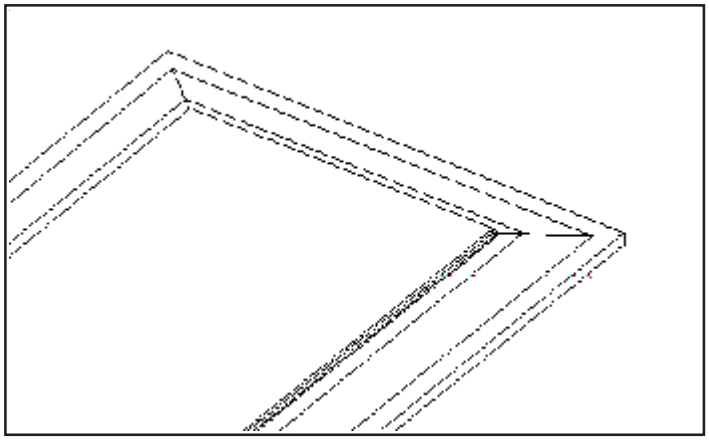
Cutting Cathedral Top Rails

1) Fence must be centered to width of the work piece.
2) Example: 10" wide rail- set pointer to 10"
3) Switch rail/cope stop OUT
4) Raise cutter heads to FULL UP.
5) Select the cope cutter on the turret position selector.
6) Lower the cutter head until it contacts the turret.
7) Move template roller to selected template
8) Place fence against rail and stops.
9) ⚠ Carriage must be pushed forward with the template roller against the flat portion of the template when loading.
10) ⚠ Clamp work piece.
11) Roller must be against template when board is clamped.
12) Switch rail/cope IN
13) Move carriage to the left across the desired template

RAISED PANEL PROFILE

This is the center panel of a raised panel door.

Cutting Raised Panel Profile

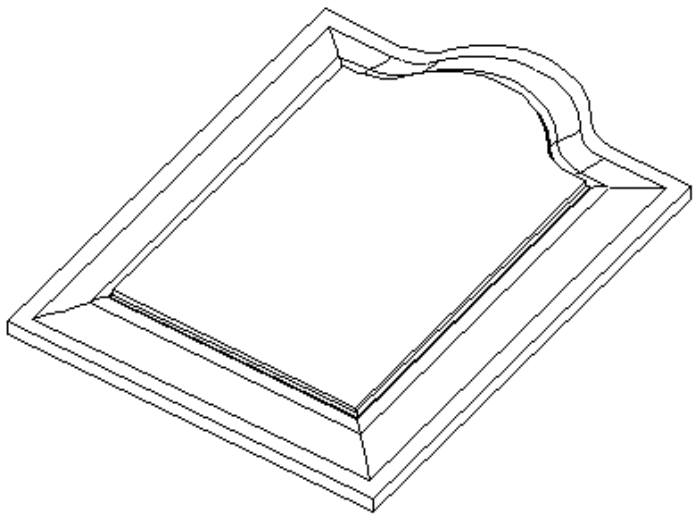


1) Raise cutter heads to FULL UP
2) Select the panel cutter on the turret selector.
3) Lower the cutter head until it contacts the turret
4) Template roller full up.
5) Switch rear panel stops to OUT position.
6) Place panel against fence and rear stops.
7) Clamp panel or work piece.
8) Switch rear stops IN position.
9) Repeat steps 3 to 6, cutting all four sides of a straight panel.

Set-Up for Production

RAISED PANEL ARCH PROFILE

This is the arch design of the center panel of a raised panel door. When cutting an arched panel it is best to cut two sides then the arch and finish panel. This will use the final cut as a cleanup for the top panel arch.



Set-Up for Production

RAISED PANEL PROFILE

This is the center panel of a raised panel door.

Cutting Raised Panel Profile

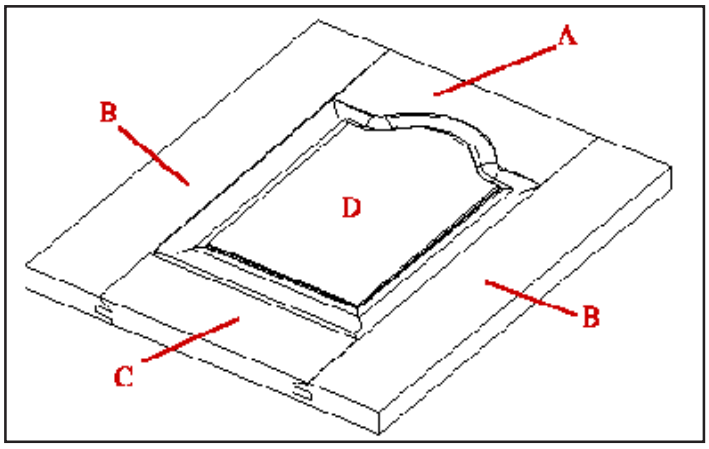
1) Raise cutter heads to FULL UP
2) Select the panel cutter on the turret selector.
3) Lower the cutter head until it contacts the turret
4) Template roller full up.
5) Switch rear panel stops to OUT position.
6) Set fence pointer to actual panel width using scale mounted on clamp bar. Example: 10" wide panel- set pointer to 10"
7) Place panel to be cut agianst the fence and stops and clamp panel down. Roller must be against template when board is clamped
8) Template roller down to desired template
9) Cut raised panel cathederal by moving table acros templateto the left following the template wheel along template.

DOOR DESIGN

The following is a collection of introductions to door design.

Vertical Panel Door

This method can be used to determine the proper size to cut material for panels, top and bottom rails when finished door size is know. This example is based on 1/8" total clearance for panels



1) Cut stiles 2-1/2" wide and same length as finished door.
2) Cut bottom rail 2-1/2" wide and 4" less than finished door width.
3) Cut straight top rail 2-1/2" wide and 4" less than finished door width.
4) Cut cathedral top rail 3-3/4" wide and 4" less than the finished door width.
4) Cut either straight or cathedral panels 4-1/8" less in both height and width of finished door size.

Example of a finished door that is 10" Wide and 12" High

A- Top Rails -3-3/4" x 6"
B- Rail -2-1/2" x 12"
C- Bottom Rail -2-1/2" x 6"
D- Panels 5-7/8" x 7-1/8"

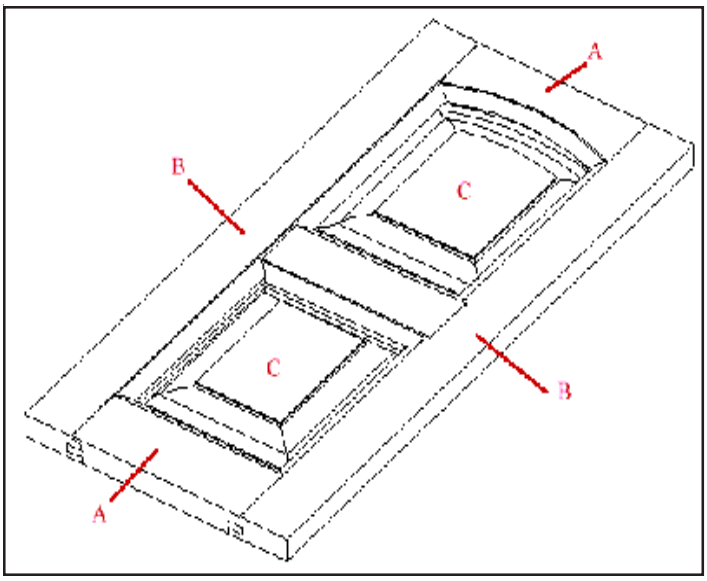
Set-Up for Production

DOOR DESIGN

The following is a collection of introductions to door design.

Vertical 2 Panel Door With Center Rail

This method can be used to determine the proper size to cut material for panels and rails when finished door size is know. This example is based on 1/8" total clearance for panels



1) Cut stiles 2-1/2" wide and same length as finished door.
2) Cut rails 2-1/2" wide and 4" less than finished door width.
3) Panel width is cut 4-1/8 less than finished door width.
4) To determine panel length subtract 5.750" from total length of door and divide by 2

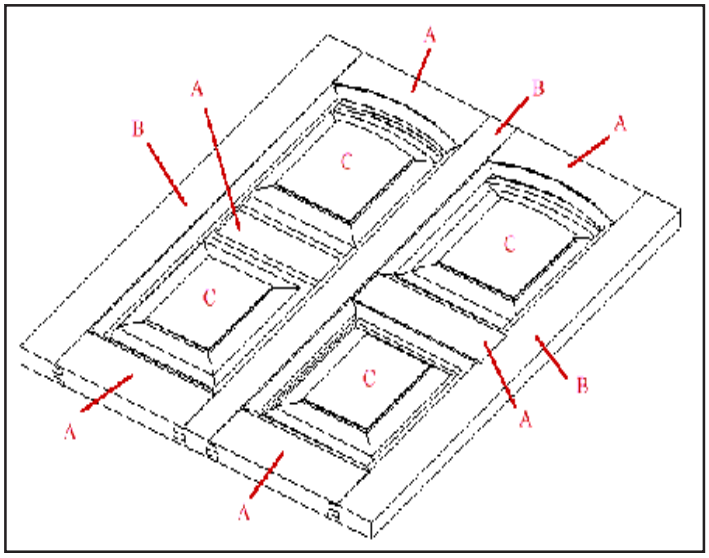
Example of a finished door that is 10" Wide and 20" High

A- Rails -2-1/2" x 6"
B- Rail -2-1/2" x 20"
C- Panels -5-7/8" x 7-1/8"

DOOR DESIGN

The following is a collection of introductions to door design.

Vertical 4 Panel Door With Center Rail



This method can be used to determine the proper size to cut material for panels and rails when finished door size is know. This example is based on 1/8" total clearance for panels.

1) Cut stiles 2-1/2" wide and same length as finished door.
2) Cut rails 5-1/2" less than finished door width and divide by 2.
3) Cut panel width 5-3/4" less than finished door width and divide by 2.
4) Cut panel length 5-3/4" less than finished door length and divide by 2.

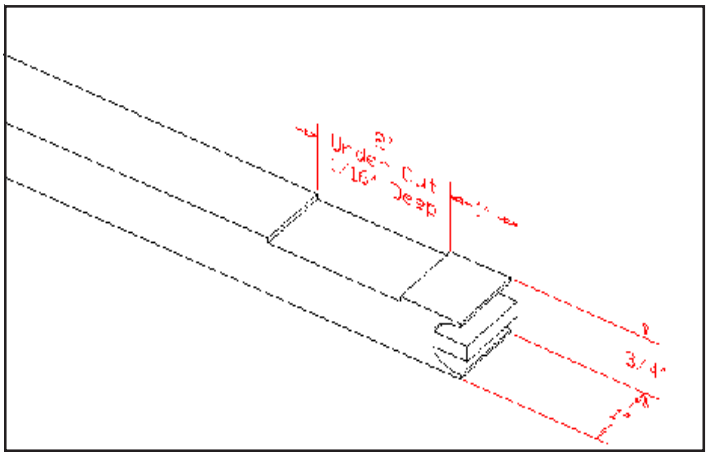
Example of a four panel door that is 16" Wide and 18" High

A- Rails -5-1/4" x 2-1/2"
B- Stiles -18" x 2-1/2"
C- Panels -5-1/8" x 6-1/8"

Set-Up for Production

BACKER BOARDS

The backer board is used to prevent blowout in the back of the finished part. The following is the proper method for making a cope backer board.



Cope Backer Board

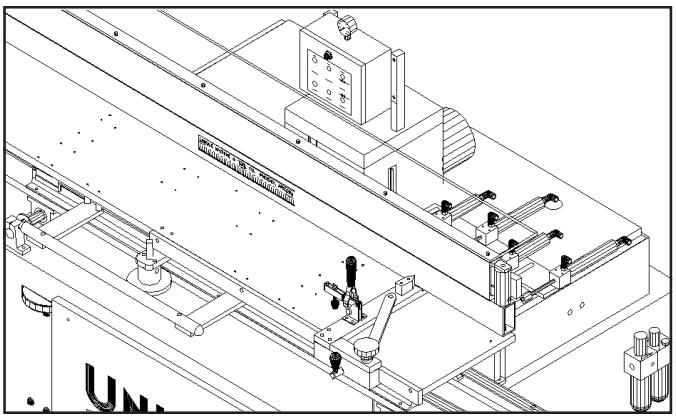
1) Cut ¾" thick board, 14" long-Oak or any type of hard wood will have a longer life
2) The backer board should not be thicker that the part being cut
3) Trim to 1" wide
4) Clamp the backer board and make the cope cut – Do Not Remove Backer Board
5) Stop cope cutter.
6) Hitting the emergency stop located on the electrical connection box can do this.
7) Pencil a mark from each side of the air clamp bar on the backer board.
8) Remove the board and under cut 1/16" deep, approximately ¼" past the marked line.
9) The air clamp will not touch the baker board if it is properly under cut and has the width clearance on each side of the air clamp bar.

The backer board is held in position by the toggle clamp on the sliding fence.

General Clean-Up

Basic Principles:

The basic cleaning principles described in this section will apply to most machines.



Follow proper Lock-Out / Tag-Out Procedures prior to cleaning this machine or any part of this machine.

Operator is closer to the operating mechanism of the machine during clean-up than during production. Extra care should be taken.

Read and follow current MSDS (Material Safety Data Sheets) and technical data sheets that relate to the cleaning materials used.

Do NOT begin clean-up until you have read and understand all of the clean-up instructions.

Do NOT clean with flammable materials unless equipped with explosion proof electrics.

Do NOT smoke, use unsafe drop cords or portable electrical tools in the area.

If flammable materials are used:

- Be sure machine is equipped with explosion proof wiring and controls.
- Use ground wire between containers when pouring flammable materials.

Follow applicable codes and standards with regard to:

- Ventilation and monitoring of work area for excessive accumulation of hazardous vapors.
- Use of proper procedure for disposing of all waste materials.

Lubrication Guide

(based on one eight hour shift).
[Manufacturer should use their own recommended frequency]

Lockout/Tagout power supply.

NOTE: Do **NOT** mix oils.

Components to Lubricate: Pnuematic Oiler

Frequency: The oiler should be filled as needed.

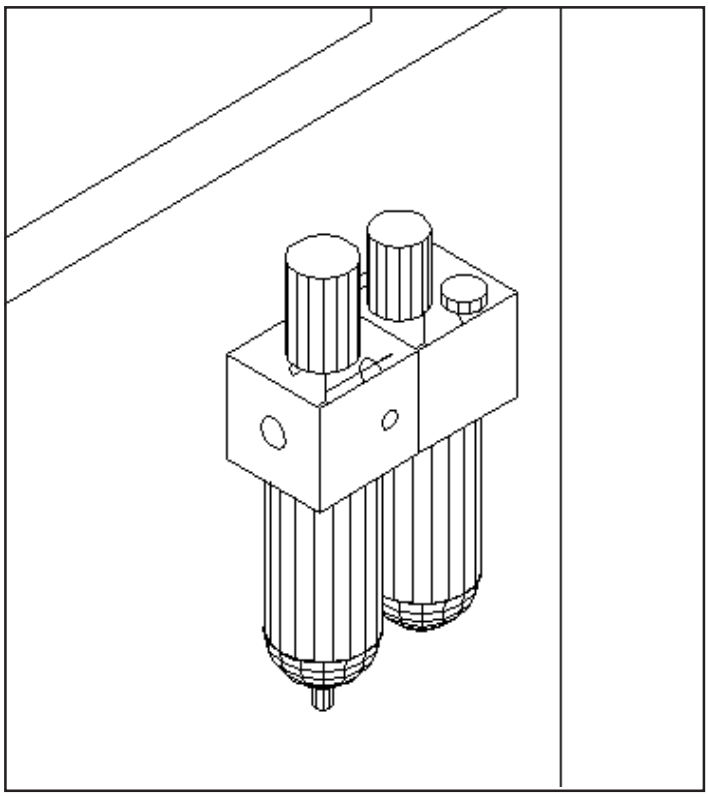
Components to Lubricate: 92" Travel Shafts

Frequency: These should be cleaned and oiled weekly

Do not operate until all guards have been installed and put in protective position.

Inspection & Preventive Maintenance

Lockout/Tagout power supply.



1. Clean dust from all moving parts daily

2. Fill lubricator with air line oil or air tool oil only

3. Use only Unique Machine and Tool Replacement parts

4. Inspect the seals on all bearings in the rollers. Look for damage, excessive wear, and cracks

Do not operate until all guards have been installed and put in protective position.

Component Changing Instructions

Tool Changing Instructions

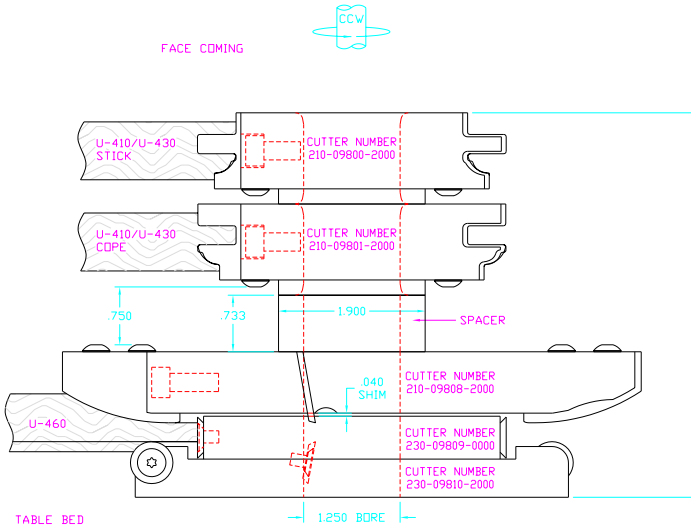
Lockout/Tagout power supply.

1. Remove the spindle cap from the mandrel assembly

2. Remove the tooling and store in a dry place

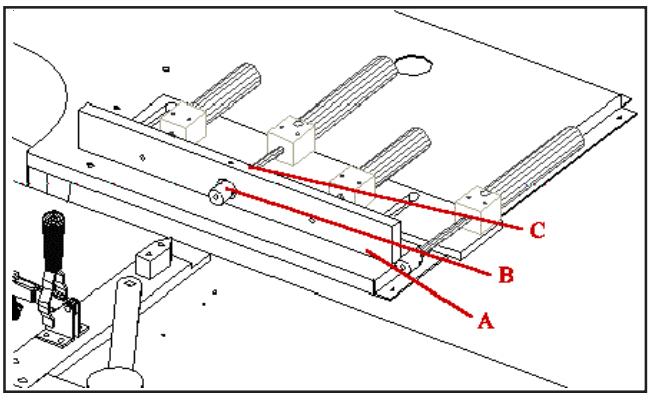
3. Install the panel cutter first on the mandrel. Making sure to that the cutter's don't contact the collar

4. Place the rail cutter on the panel cutter spacing to insure that the panel cutter will not hit the table when cutting



Machine Adjustment

Lockout/Tagout power supply.



Carriage Stops

There are three stops on the carriage

1. Front/Panel Cutter Carriage Stop. Do not move these safety stops. Moving these to allow more travel inward could cause serious damage to cutters or carriage.
2. Two stops mounted on rear of carriage to allow more travel inward. If these stops are moved, check clearance between cutters and carriage.

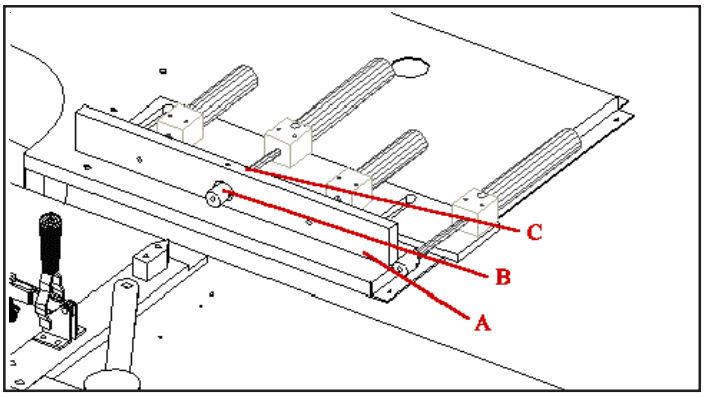
Front Stop Adjustments

Front and Rear stops are adjusted by loosening the slotted screws (2) on the cylinder plate and moving forward or back in the slots provided.

Machine Adjustment

Lockout/Tagout power supply.

Checking Front Stop Setting “A”



1) Cut a ¾” board 10" square.
2) Position rail cutter.
3) Hold carriage inward against the table stops.
4) Switch cope/rail stops (A) to the OUT position.
5) Place the board against the fence “D” and forward against cope/rail stop.
6) Press clamp down switch to lock board.
7) Switch cope/rail stops (A) to the in position.
8) Draw a pencil line on the table along the rear (operator side) of the clamped board.
9) Hold carriage forward (inward) against table stops, unclamp board and move forward “IN” approximately 1/8" from the line that is marked on the table.
10) Turn spindle cutter on and run cut across that full length of the 10" board.

    After making cut, DO NOT UNCLAMP BOARD!

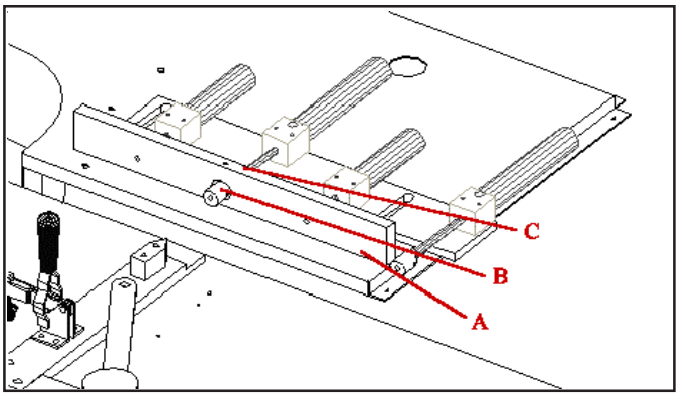
11) Move carriage back to the right side and align the “cut” board in front of the cope/rail stops.
12) Switch cope/rail stops to the out position.

    If the front stops are aligned properly, the cut board should touch the cope/rail stops and also should be

Machine Adjustment

Lockout/Tagout power supply.

Checking Front Stop Setting “B”



Use the same procedure from section 3.2 with these exceptions

1) The cutter is to be switched to the "UP" position.
2) The panel stop "B" will be used to position the board.

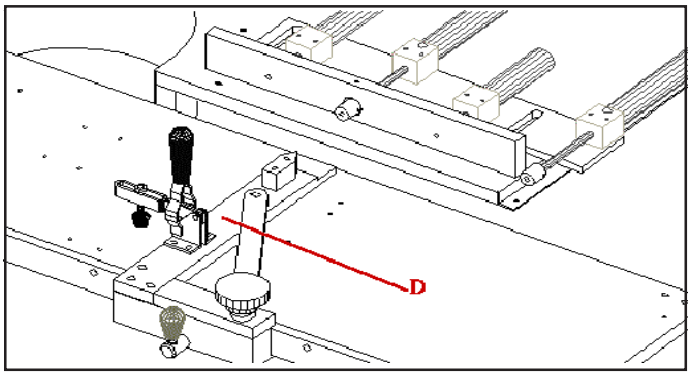
   Switch to "OUT" position to locate board on table.
3) After cutting the board move back to the right side and align the "CUT" board with the panel stop "B" switched to the out postion. The board after being cut will make slight contact with the rear stops, if the settings are properly set.
4) The adjustment of the rear stop for cutting the Cathederal Panel is the two inner bras sleeves "C", the depth of the cathederal panel is made by loosening the rear setscrews, and turning the inner brass sleeve.

The template roller must be in the full down position when checking the cathedral panel stops settings

Machine Adjustment

Lockout/Tagout power supply.

Squaring Bar



The squaring bar or fence (“D” on sketch) that slides across that table must be squared from the rail/cope stops “A” only, (DO NOT use carriage table to square fence).

1. Loosen the adjustment bolts on the squaring fence.
2. Using a machinist square align the fence with the squaring bar.
3. Tighten the adjustment bolts while holding the fence in place.

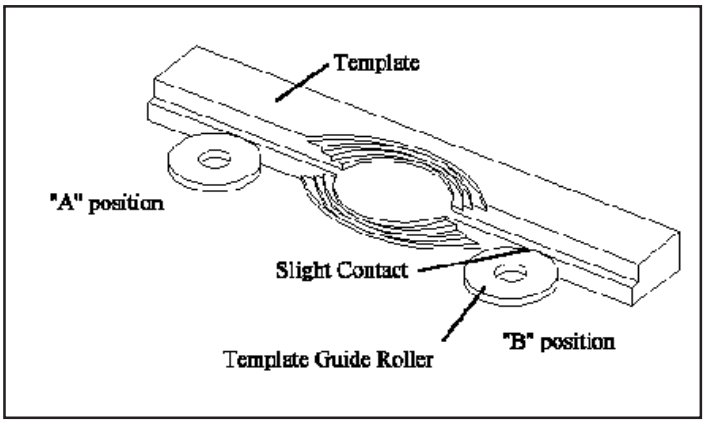
Machine Adjustment

Lockout/Tagout power supply.

Template Adjustment

All adjustments are Pre-Set at the factory. If template adjustments are necessary use the following procedure.

1) Loosen the black knob located on the right side of the mounting brackets, to remove template.
2) Turn screws (in or out) equal distance. Tighten black knob on the right side.



Template Alignment Procedure

1) Switch cutter to the up position and loosen the black knob on the right side of the template.
2) Pull the template roller down to the extreme bottom position.
3) Adjust the template (either in or out) by turning the set screws located in the template, (one on each side), until the roller comes in contact with the flat surface of the template.
4) Once the “B” position is properly set, move the carriage to the left of template “A” position and repeat step (3).
5) Once the “A” position recheck the “B” position.
6) The proper setting on the template and roller is a very slight contact with each other to allow the roller to turn anywhere on the flat surface on the template.

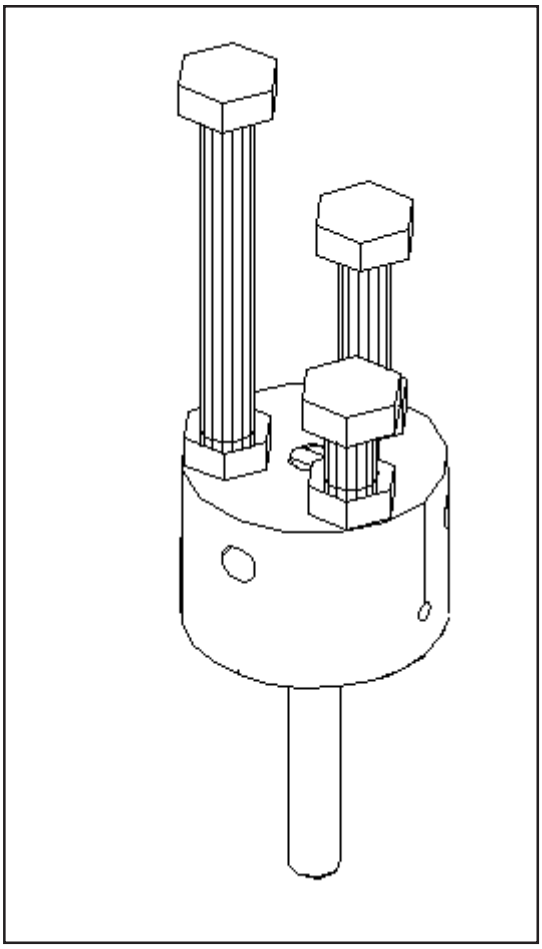
The carriage must be held against the stops (Inward Position) while the above settings are made.

Machine Adjustment

Lockout/Tagout power supply.

Template Cutter Height Adjustment

The cutter height can be adjusted from the raising the cutter head to the full up position. Adjusting the turret position selector until the turret is in the desired location. Then lower the cutter head until it contacts the turret.



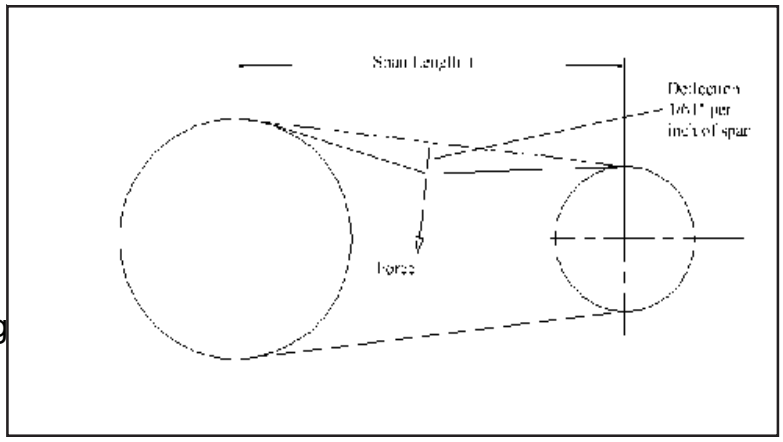
Machine Adjustment

Lockout/Tagout power supply.

Tensioning The Drive Belt

When you install the belt, you will want to avoid extremely high tension or belt life will be reduced.

When using a numerical method for tensioning the drive, the following procedures may be used. The procedure consists of measuring the pounds of force required to deflect one span of the belt a given amount, as shown in the sketch.



Routine Maintenance Parts List:

No	Description	Part Number
1	Tubing, 1/4" OD Black	991142
2	Tubing, 1/4" OD Red	991143
3	Tubing, 1/4" OD Yellow	991144
4	Tubing, 1/4" OD Orange	991145
5	Tubing, 1/4" OD Green	991146
6	3/8" Filter-Regulator	991001
7	3/8" Lubricator	991002
8	Tube, 1/8" OD Air, Clear	991167
9	Tube, 1/8" OD Air, Yellow	991168
10	Tube, 1/8" OD Air, Black	991169
11	Tube, 1/8" OD Air, Blue	991170
12	Tube, 1/8" OD Air, Red	991171
13	Tube, 1/8" OD Air, Orange	997772
14	Tube, 1/8" OD Air, Green	991173
15	Tube, 1/8" OD Air, Grey	991174
16	Tubing, 1/4" OD Blue	991175
17	Tubing, 3/8" ID Clear	991176
18	Bearing, Thrust	992230
19	Washer, Thrust	992231
20	34" Micro V-Belt - 10 Groove	992195
21	Control Valve, Toggle	991004
22	Control Valve, Push Button	991005
23	Air Flow Valve	991303
24	Speed Control	991007
25	Stop Cylinder - 2"	991014
26	Stop Cylinder - 4"	991015
27	Clamp Bar Cylinder	991017
28	Air Pressure Gauge	991034
29	Flow Control	991035
30	Template Roller Bearing	992014
31	Pilot Light	993008
32	Electric Thermal Units	993071
33	Fence Clamp Assembly	995001
34	Fence Knob	995007
35	Metric Scale	995021
36	Clamp Bar Pad	995128

Long Term Storage Procedure

- Apply rust preventive to all unpainted metal parts.
- Lubricate all bearings with fresh grease.
- Place in a clean dry area and away from extreme high or low temperatures.
- Cover with a clean tarp or plastic sheeting.
- During storage, rotate the large bearings (*list intervals).*

Trouble Shooting

Symptom:	Possible Causes & Suggested Action:
• Machine will not run.	**Cause:** Electric power not connected. **Action:** Check fuses, power supply, electric motor, switches, interlocks, etc.
• Machine is running the wrong direction.	**Cause:** Motor leads connected incorrectly. **Action:** Reconnect motor leads - refer to electrical diagram. **Switch 2 of the motor leads, to run opposite direction.**
• Clamps coming down slowly	**Cause:** Clamp air flow restricted **Action:** Flow controllers need to be opened or cleaned
• Table travel isn't smooth	**Cause:** Bearing improperly lubricated **Action:** Lubricate the 92" travel shafts and move the table left to right, repeat.
• Tube fitting's blowing off	**Cause:** Internal regulator pressure improperly set **Action:** Reduce the internal regulator pressure to the recommended 65-70lbs
• Finished piece isn't straight on the profile across the length	**Cause:** Clamp bar stops aren't set properly, causing the table to deflect **Action:** Adjust the stops to allow for the correct amount of pressure for the given width
• Finished piece isn't parallel to the table travel	**Cause:** Stops are out of adjustment **Action:** Align the stops as outlined in the maintenance section
• Finished piece isn't square at the ends	**Cause:** Squaring fence is out of alignment **Action:** Align the squaring fence as outlined in the maintenance section

Daily Safety Check List (Photocopy for daily use.)	Comments	Date	By
• Operating and safety manual available to operator.			
• Safety plates, decals and posters in readable condition.			
• Operators trained for efficient and safe operation.			
• Good housekeeping and orderly work place maintained.			
• Loose clothing, long hair and jewelry forbidden.			
• Guards in protective position during production and clean-up.			
• Interlocks kept clean and tested regularly.			
If Flammable Solvents Are Used: • Explosion proof electrics on machine.			
• Machine wired according to proper electrical codes.			
• Proper type fire extinguisher nearby.			
• Employees trained to handle emergency.			
• Prohibit non-explosion proof items in area such as drop cords, fans, portable power tools, smoking etc.			
• Adequate ventilation.			

Check List (Photocopy for daily use.)

Daily Maintenance Check List	Comments	Date	By
• Test interlocks.			
• Check operation of motor drive unit and electrical controls.			

Daily Production Check List	Comments	Date	By
• Sprockets and chains - correct tension and good condition.			
• Proper lubrication.			

Check List (Photocopy for weekly use.)

Weekly Maintenance Check List	Comments	Date	By
• Lubricate machine (chain, gears, pivot points etc.).			
• Check sprockets, bearings & belts for wear.			

Check List (Photocopy for monthly use.)

Monthly Maintenance Check List	Comments	Date	By
• Inspect bearing mounting for cracks and wear.			
• Inspect all bearing journals and bearings for wear.			
• Check operation of optional equipment.			

Six Month Maintenance Check List	Comments	Date	By
• Check oil level in gearboxes and motor drives.			

Company Name & Contact Information

Model 250MC
Raised Panel Door Machine

Unique Machine and Tool Co.
4232 E. Magnolia
Phoenix, AZ 85034
Phone: 602-470-1911
Fax: 602-470-1916

www.uniquemachine.com

Machine Disposal Instructions:

1. Drain all air tool oil from the machine.

2. Dispose of machine with licensed waste handler

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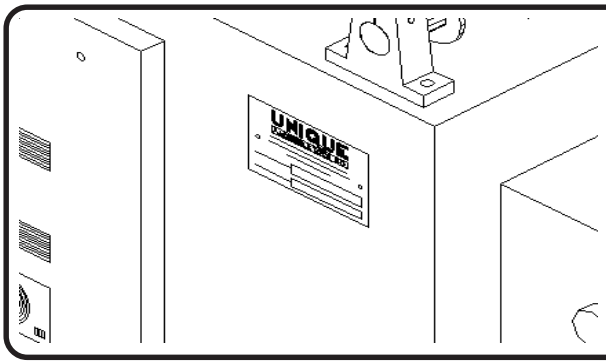
At Your Service

Company Contact Information and Divisions



IMPORTANT:

Machine serial number from nameplate mounted on (location) of machine, is a must for us to be of assistance.

Most repair parts are shipped the same day from inventory.
[Narative: Company divisions maintain a large inventory of repair parts. Emergency phone or mail orders are shipped the same day by the carrier that best meets the delivery requirements.]

Factory trained repairmen for field service calls.
[Narative: Specialists are on call to repair your machine in your plant...to get your lines running again as fast as possible and to avoid costly production losses.]

Equipment setup and operating instructions are available.
[Narative: A technician can help you "start-up" your new equipment and/or to instruct your machine operators in proper operation and maintenance.]

Training seminars.
[Narative: Seminars, which are available at a nominal charge, can return many times the cost in quality, productivity, material savings, and safety performance.]

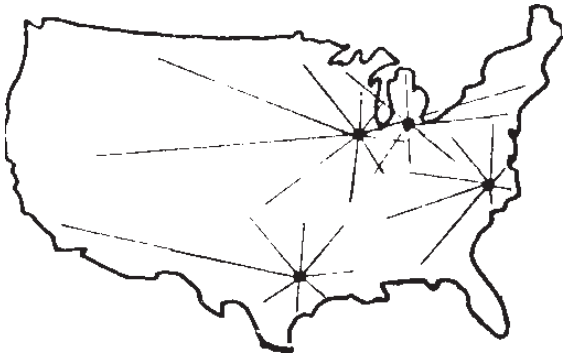
Preventive maintenance service to maximize production.
[Narative: Preventive maintenance contracts are scheduled inspections of your machine(s). Parts replacement will be done at your approval.]

At Your Service - Continued

Machine rebuilding - fast service is available.
Machines can be rebuilt to new machine specifications after many years of use. For information call your nearest dealer.

Machine records instantly available.
Computer systems provide a complete parts listing and record of previous orders. Complete machine records are kept for each machine by serial number. When you phone or email us for information please be prepared to provide the maching serial number.

Company Divisions.
Company dealers are strategically located to serve major areas...Providing fast economical service when you need help.



Company Divisions

Recommended Spare Parts List

Model No 250 MC

Serial No.

	Description	Part Number
1	Tubing, 1/4" OD Black	991142
2	Tubing, 1/4" OD Red	991143
3	Tubing, 1/4" OD Yellow	991144
4	Tubing, 1/4" OD Orange	991145
5	Tubing, 1/4" OD Green	991146
6	3/8" Filter-Regulator	991001
7	3/8" Lubricator	991002
8	Tube, 1/8" OD Air, Clear	991167
9	Tube, 1/8" OD Air, Yellow	991168
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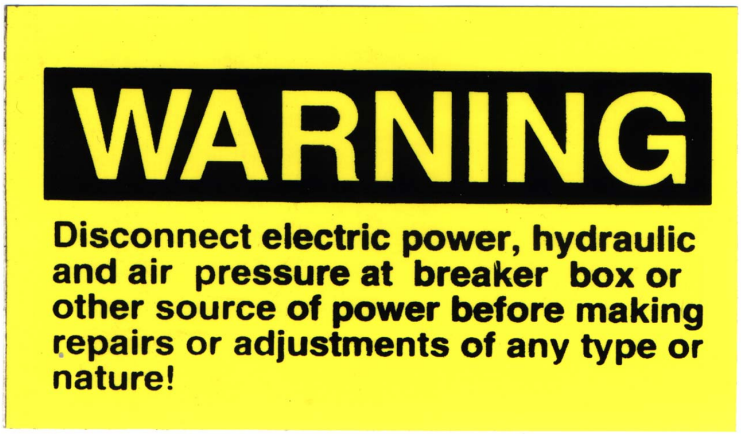
13	Tube, 1/8" OD Air, Orange	997772
14	Tube, 1/8" OD Air, Green	991173
15	Tube, 1/8" OD Air, Grey	991174
16	Tubing, 1/4" OD Blue	991175
17	Tubing, 3/8" ID Clear	991176
18	Bearing, Thrust	992230
19	Washer, Thrust	992231
20	34" Micro V-Belt - 10 Groove	992195
21	Control Valve, Toggle	991004
22	Control Valve, Push Button	991005
23	Air Flow Valve	991006
24	Speed Control	991007
25	Stop Cylinder - 2"	991014
26	Stop Cylinder - 4"	991015
27	Clamp Bar Cylinder	991017
28	Air Pressure Gauge	991034
29	Flow Control	991035
30	Template Roller Bearing	992014
31	Pilot Light	993008
32	Electric Thermal Units	993071
33	Fence Clamp Assembly	995001
34	Fence Knob	995007
35	Metric Scale	995021
36	Clamp Bar Pad	995128

Machine Replacement Decals & Signs

The following decals and signs are available and should be positioned according to the instructions that accompany the illustrations.

Attach this decal to every electrical panel, near the main disconnect or panel latch.



Attach this decal to every cutter guard.

Machine Replacement Decals & Signs - Continued

Attach this warning decal anywhere there is a machine access cover

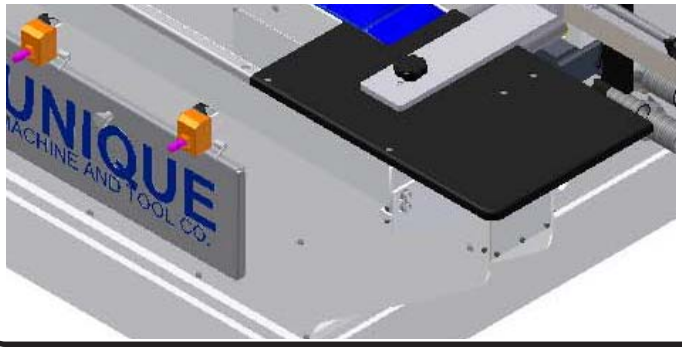
Position at point where hands could be pinched during the normal operation of the machine.

Machine Replacement Decals & Signs - Continued

Attach this warning decal anywhere there is a danger of moving parts.

At Your Service

Unique Machine and Tool Inc.
4232 E. Magnolia St.
Phoenix, AZ 85034 U.S.A.
Phone: 602-470-1911
Fax: 602-470-1916



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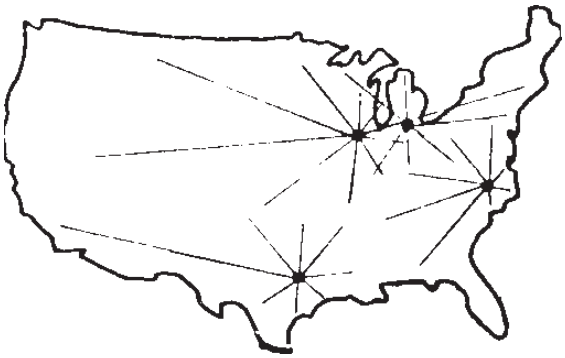
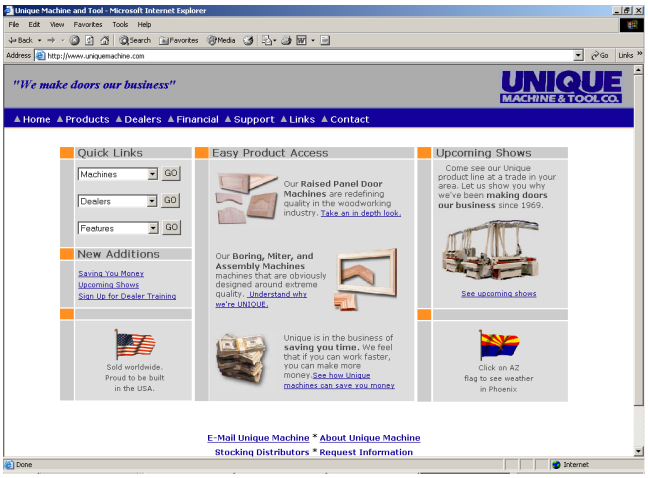


Web
Check out our web page www.uniquemachine.com for the latest news, information, and dealers in your area.



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Routine Maintenance Parts List:

Model Number **3250**

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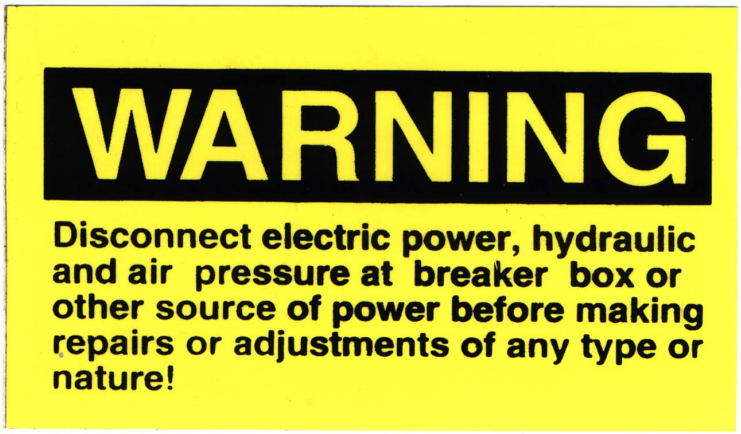
4	Tubing, 1/4" OD Orange	991145
5	Tubing, 1/4" OD Green	991146
6	3/8" Filter-Regulator	991001
7	3/8" Lubricator	991002
8	Tube, 1/8" OD Air, Clear	991167
9	Tube, 1/8" OD Air, Yellow	991168
10	Tube, 1/8" OD Air, Black	991169
11	Tube, 1/8" OD Air, Blue	991170
12	Tube, 1/8" OD Air, Red	991171
13	Tube, 1/8" OD Air, Orange	991772
14	Tube, 1/8" OD Air, Green	991173
15	Tube, 1/8" OD Air, Grey	991174
16	Tubing, 1/4" OD Blue	991175
17	Tubing, 3/8" ID Clear	991176
18	Bearing, Thrust	992230
19	Washer, Thrust	992231
20	400mm Timing Belt	992235
21	450mm Timing Belt	992236
22	475mm Timing Belt	992465
23	Airtrol Pressure Switch	991303
24	Speed Control	991007
25	Red Light	993720
26	Green Light	993721
27	Station Adjustment Clyinder	991265
28	Air Pressure Gauge	991034
29	Flow Control	991035
30	Station Adjustmetn Nut	3250209
31	Home Sensor	993589
32	Limit Sensor	993588
33	Servo Motor	993567
34	Servo Drive	993910
35	Conveyor Pad	994183
36	Holdown Wheel	994042
40	Holdown Wheel Hub	999147

Machine Replacement Decals & Signs

The following decals and signs are available and should be positioned according to the instructions that accompany the illustrations.

Attach this decal to every electrical panel, near the main disconnect or panel latch.



Attach this decal to every cutter guard.

Machine Replacement Decals & Signs - Continued

Attach this warning decal anywhere there is a machine access cover

Position at point where hands could be pinched during the normal operation of the machine.

Machine Replacement Decals & Signs - Continued

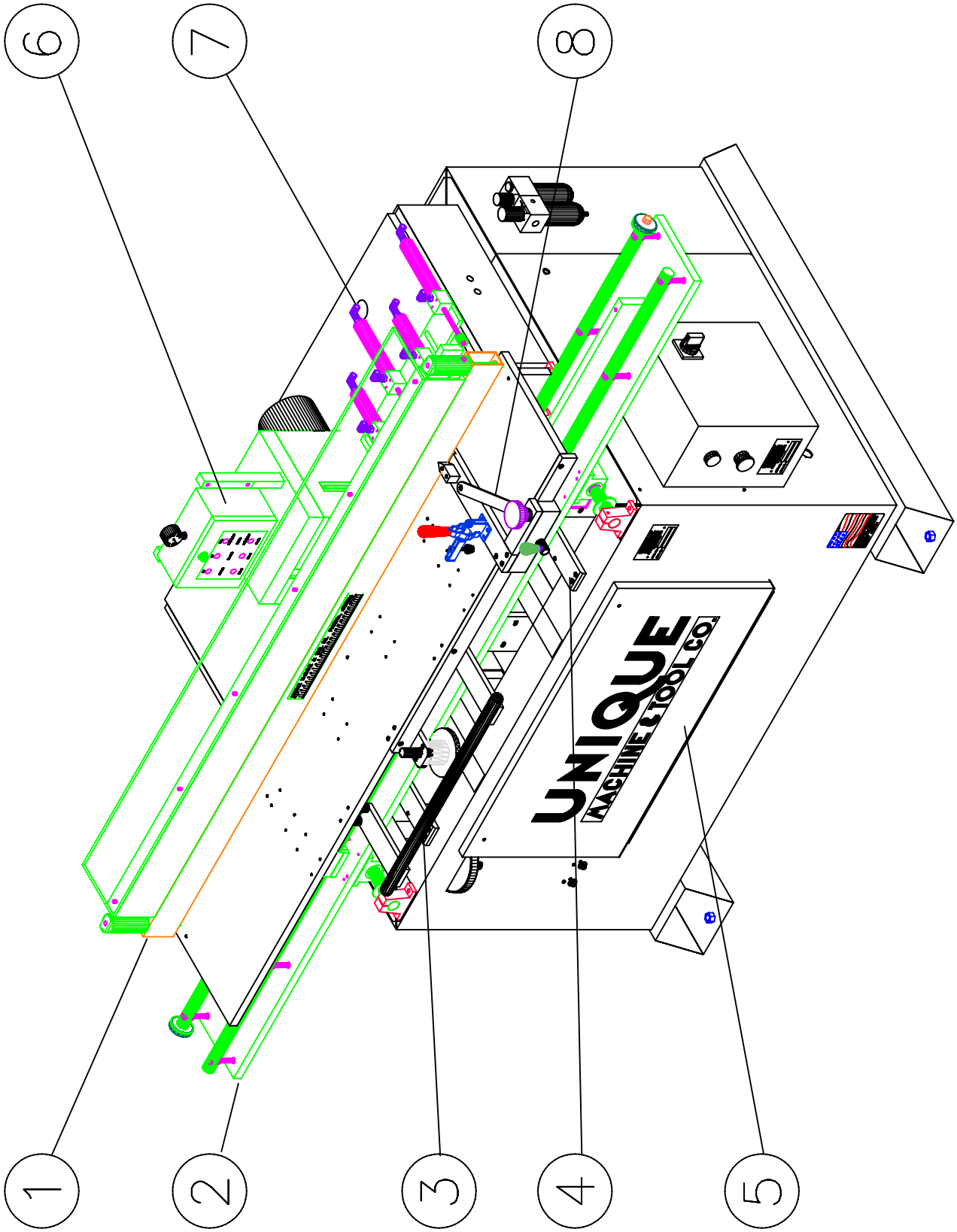
Attach this warning decal anywhere there is a danger of moving parts.

Appendices

Assembly Diagrams

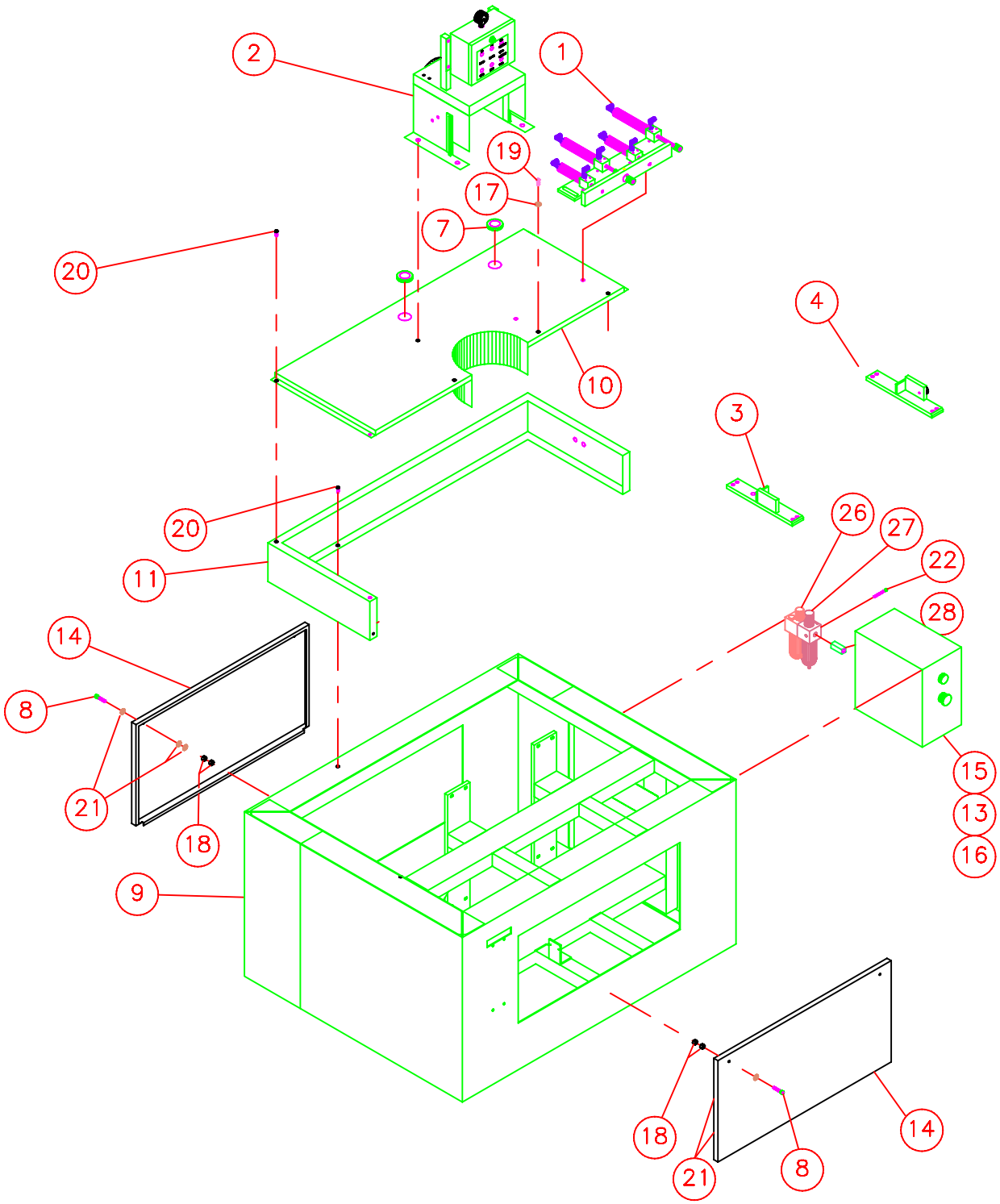
These drawings are for internal use only and are not to be reproduced without permission of Unique Machine and

250 MC Overview



250 MC

NO.	PART NUMBER	NAME	REQD
1	250064	Table Top Assembly	1
2	250065	Table Bottom Assembly	1
3	250059	Left Template Mount Assembly	1
4	250060	Right Template Mount Assembly	1
5	250055	Internal Assembly	1
6	250057	Cutter Guard Assembly	1
7	250058	Panel Stop Assembly	1
8	250053	Squaring Fence Assembly	1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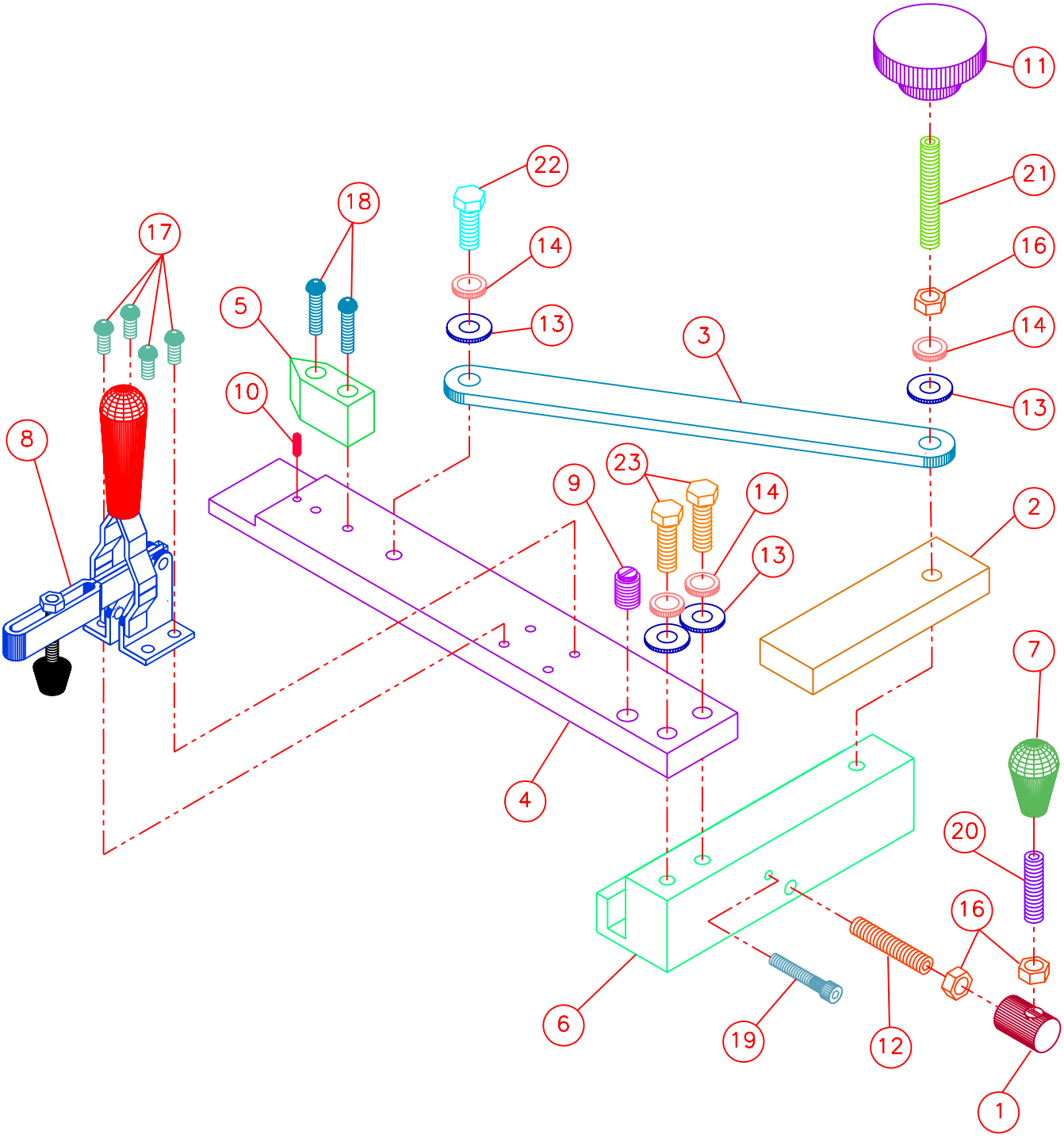
External Sub Assembly

NO.	PART NUMBER	NAME	REQD
1	250056E	STOP SUB-ASSEMBLY	1
2	250057E	CUTTER GUARD SUB-ASSEMBLY	1
3	250059	TEMPLATE MOUNT - LEFT SUB-ASSEMBLY	1
4	250060	TEMPLATE MOUNT - RIGHT SUB-ASSEMBLY	1
5	250061	RAIL STOP SUB-ASSEMBLY	1
6	250299	RFRAME COVER - LEFT	1
7	250300	FRAM COVER - CENTER	1
8	250301	FRAME COVER - RIGHT	1
9	250808	250E FRAME WELDMENT	1
10	994013	TOP	1
11	994018	CHANNEL	1
12	994070	STOP GUARD	1
13	994076	LEFT GUARD	1
14	994105	BACK DOOR	1
15	994119	INSIDE GUARD	2
16	995166	GROMMET	2
17	996004	FLATWASHER	2
18	996300	BUTTON HEAD CAP SCREW	22
19	996302	BUTTON HEAD CAP SCREW	6
20	998383	SHEETMETAL SCREW	22
21		ELECTRICAL BOX	
22	996005	LOCKWASHER	4
23	996052	HEX NUT	4
24	996308	BUTTON HEAD CAP SCREW	6
25	996132	SOCKET HEAD CAP SCREW	2
26	996060	JAM NUT	4
27	996026	FLASWASHER	6
28	996108	SOCKET HEAD CAP SCREW	2
29	996317	BUTTON HEAD CAP SCREW	1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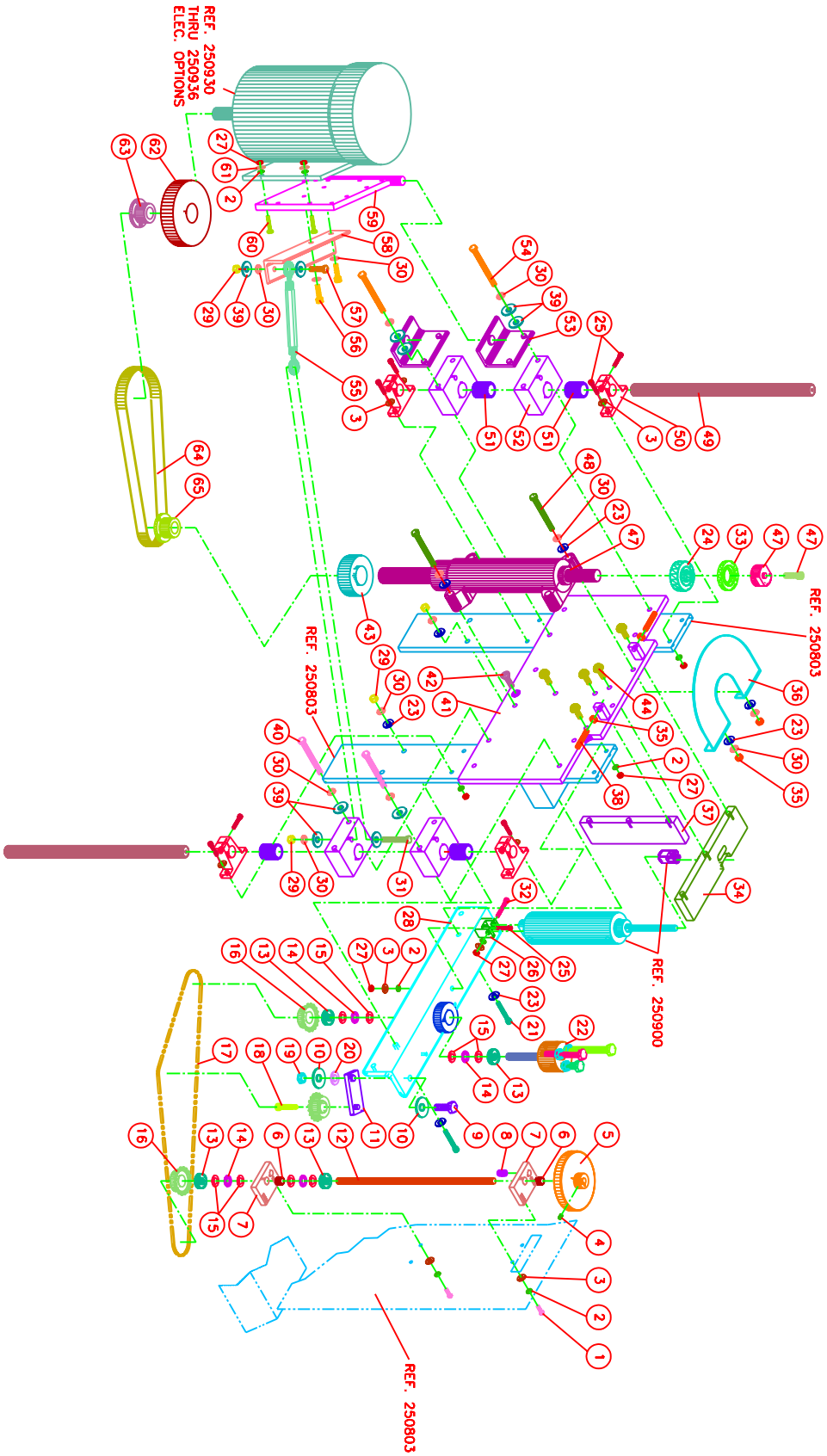
Fence Assembly

NO.	PART NUMBER	NAME	REQD
1	250213	Housing, Lever Lock	1
2	250220	Guide, Fence	1
3	250222	Brace, Fence	1
4	250224	Fence Table	1
5	250225	Pointer, Fence	1
6	250226	Bar, Fence Clamp	1
7	995000	Handle	1
8	995001	Assembly, U-Clamp	1
9	995004	Plunger, 1/2-13	1
10	995006	Plunger, 10-32	1
11	995007	Knob	1
12	996394	3/8-16 X 2 Setscrew	1
13	996026	5/16 Super 9 Flatwasher	4
14	996009	3/8 Lockwasher	4
15	996505	3/8-16 X 1-1/4 HHB	2
16	996060	3/8-16 Jam Nut	3
17	996301	1/4-20 X 1/2 BHS	4
18	996303	1/4-20 X 1 BHS	2
19	996114	1/4-20 X 1-1/2 SHCS	1
20	996393	3/8-16 X 1-1/2 SETSCREW	1
21	996396	3/8-16 X 2-1/2 SETSCREW	1
22	996504	3/8-16 X 1 HHB	1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Internal Assembly

NO.	PART NUMBER	NAME	REQD
1	996302	1/4-20 X 3/4 BHCS	4
2	996005	1/4 LOCK WASHER	18
3	996021	1/4 AN FLAT WASHER	14
4	996384	1/4-20 X 3/8" SCREWSET	1
5	250344	TURRET POSITION SELECTOR	1
6	992110	1/2" BRONZE BUSHING	2
7	250348	SELECTRO SHAFT BEARING BLOCK	2
8	995213	1/2-13 DELRIN BALL PLUNGER	1
9	996520	1/2-13 X 1-1/2 HHB	1
10	996012	1/2 FLAT WASHER	2
11	330313	IDLER WHEEL SUPPORT PLATE	1
12	250217	TURRET SELECTOR SHAFT	1
13	992136	1/2 ID SPLIT COLAR	4
14	992030	THRUST BEARING	4
15	992031	THRUST WASHER	8
16	992106	SPROCKET W/ 1/2" KEYED HOLE	3
17	992119	#35 ROLER CHAIN	1
18	996350	1/2 X 1 1/4 SHOULDER BOLT	1
19	996072	1/2-20 JAM NUT	1
20	996013	1/2 LOCK WASHER	1
21	996133	3/8-16 X 2 SHCS	4
22	250072	STACK TURRET SUB-ASSY	1
23	996026	5/16 SUPER 9 WASHER	8
24	000207	MANDREL COLLAR	1
25	996113	1/4-20 X 1 1/4 SHCS	13
26	320234	YOKE	1
27	996052	1/4-20 HEX NUT	14
28	250813	TURRET MOUNT WELDMENT	1
29	996058	3/8-16 HEX NUT	6
30	996009	3/8 LOCK WASHER	14
31	996509	3/8-16 X 2 1/2 HHB	1
32	996115	1/4-20 X 1 3/4 SHCS	1
33	000206	MANDREL COLLAR	1
34	250345	CLEVIS MOUNT BAR	1
35	996060	3/8-16 JAM NUT	4
36	994020	DUST GUART	1
37	250347	HEIGHT STOP BAR	1
38	996394	3/8-16 X 2 SET SCREW	2
39	996019	3/8 SUPER 9 WASHER	12
40	996512	3/8-16 X 3 1/2 HHB	4
41	250804	MAIN SLIDE PLATE WELDMENT	1
42	996740	3/8-16 X 1 FHSC	1
43	992182	SPINDLE PULLEY	1
44	996306	3/8-16 X 1 BHCS	5
47	992039	1 1/4 X 6 MANDREL	1
48	996511	3/8-16 X 3 HHB	4
49	250216	CARRIAGE SLIDE SHAFT	2
50	992005	1" SHAFT SUPPORT BLOCK	4
51	992096	1 X 1 1/4 X 2 BRONZE BLUSHING	4
52	250352	CARRIAGE SLIDE BEARING BLOCK	4
53	250349	MOTOR MOUNT BRACKET	2
54	996513	3/8-16 X 4 HHB	4
55	995234	3/8 X 10 1/2 TURNBUCKLE	1
56	996126	3/8-16 X 3/4 SHCS	2

Internal Assembly

NO.	PART NUMBER	NAME	REQD
56	992096	1 X 1 1/4 X 2 BRONZE BLUSHING	4
57	250352	CARRIAGE SLIDE BEARING BLOCK	4
58	250349	MOTOR MOUNT BRACKET	2
59	996513	3/8-16 X 4 HHB	4
60	995234	3/8 X 10 1/2 TURNBUCKLE	1
61	996126	3/8-16 X 3/4 SHCS	2
62	996506	3/8-16 X 1/2 HHB	1
63	250351	BELT TENSIONER BRACKET	1
64	250812	MOTOR MOUNT PLATE WELDMENT	1
65	996478	1/4-20 X 1 1/4 HHB	4
66	996004	1/4 FLAT WASHER	4
67	992184	MOTOR PULLEY	1
68	992186	1610 1 1/8 SPINDLE BUSHING	1
69	992195	340j 34" 10 GROOVE V BELT	1
70	992185	1108 1-1/8" SPINDLE BUSHING	1

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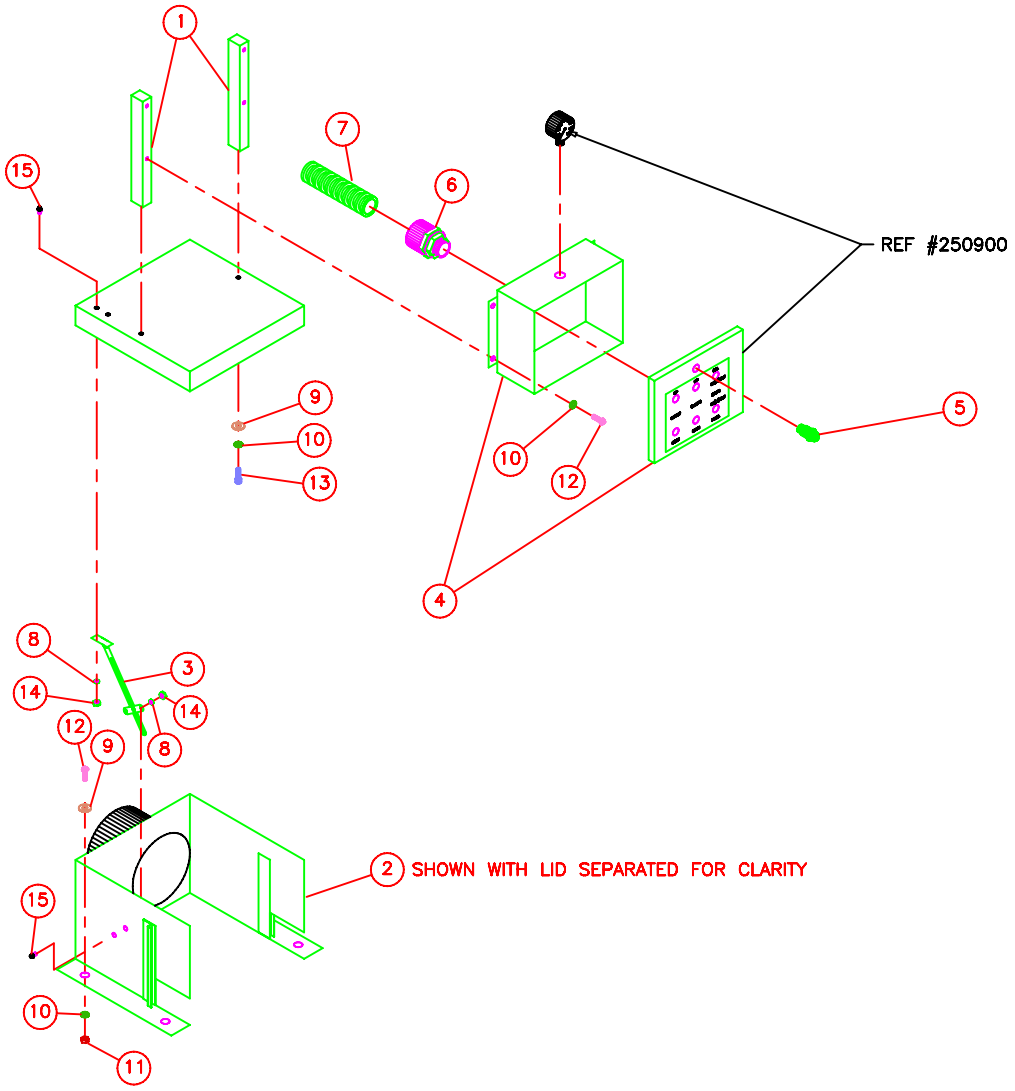
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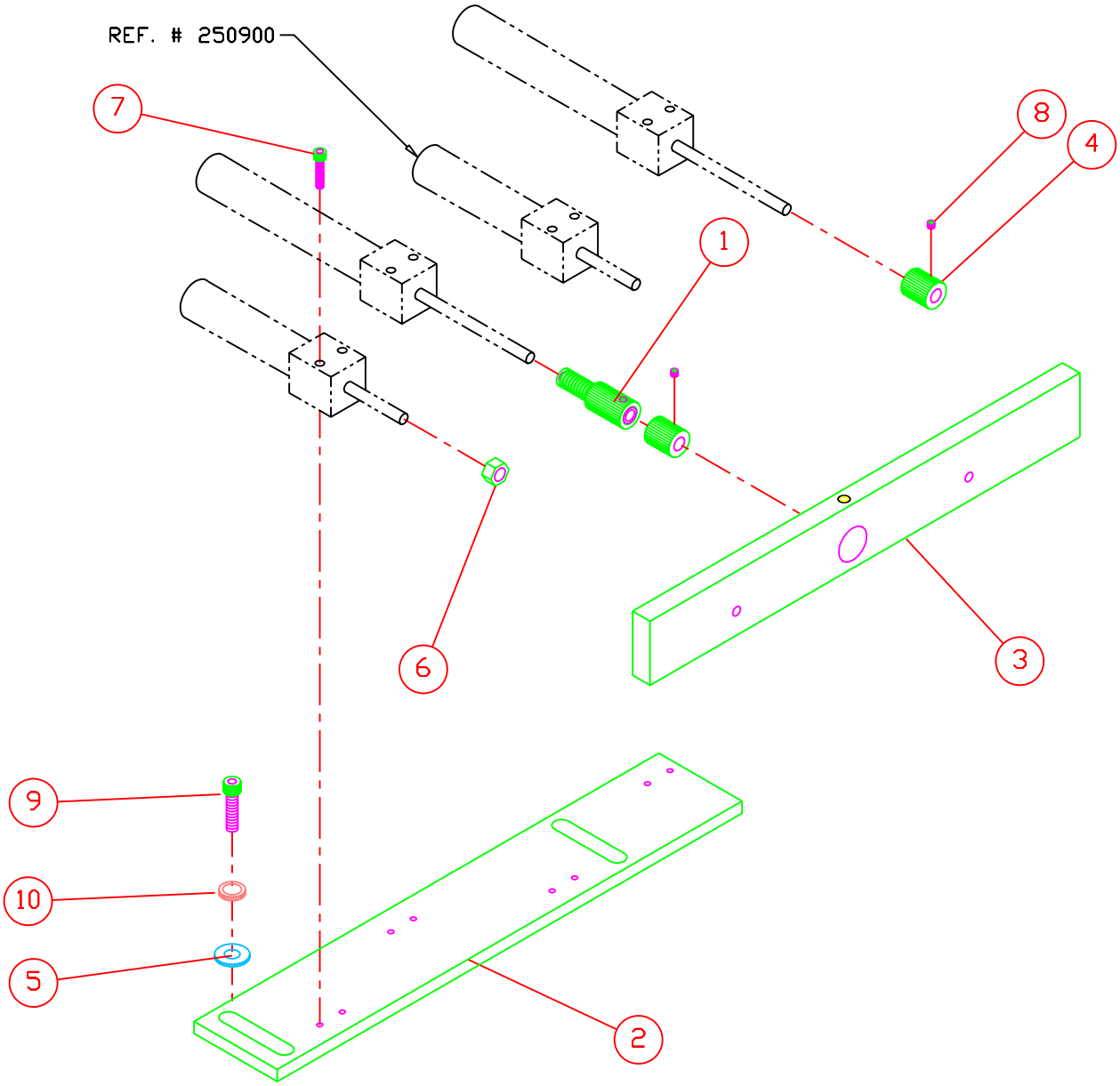
Cutter Guard Assembly

NO.	PART NUMBER	NAME	REQD
1	250232	BRACKET, CONTROL BOX MOUNT	1
2	250801	WELDMENT, GUARD, CUTTER	1
3	995052	SUPPORT, LID	1
4	250327	BOX, CONTROL	1
5	993006	LIGHT, PRESSURE WARNING	1
6	993011	CONNECTOR, CONDUIT	1
7	993012	CONDUIT	1
8	996003	#10 LOCKWASHER	4
9	996004	1/4 FLATWASHER	6
10	996005	1/4 LOCKWASHER	10
11	996052	1/4-20 NUT	4
12	996476	1/4-20 X 3/4 HEX	10
13	996101	10-32 X 1/2 HEX	4
14	996051	10-32 NUT	4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Stop Assembly

NO.	PART NUMBER	NAME	REQD
1	250052	SUB-ASSSEMBLY, STOP PANEL	1
2	250237	PLATE, ADJUSTABLE CYLINDER	1
3	250239	BAR, RAIL STOP	1
4	250321	STOP, OUTER PANEL	2
5	996006	FLAT 5/16	2
6	995056	5/16-24 NUT	2
7	996105	10-32 X 1-1/4 SHCS	8
8	996379	10-32 X 3/16 SETSCREW	2
9	996504	3/8-16 X 1 HEX HEAD	2
10	996009	3/8 LOCKWASHER	2
11	996414	SET SCREW 10-32 X 1/8	1

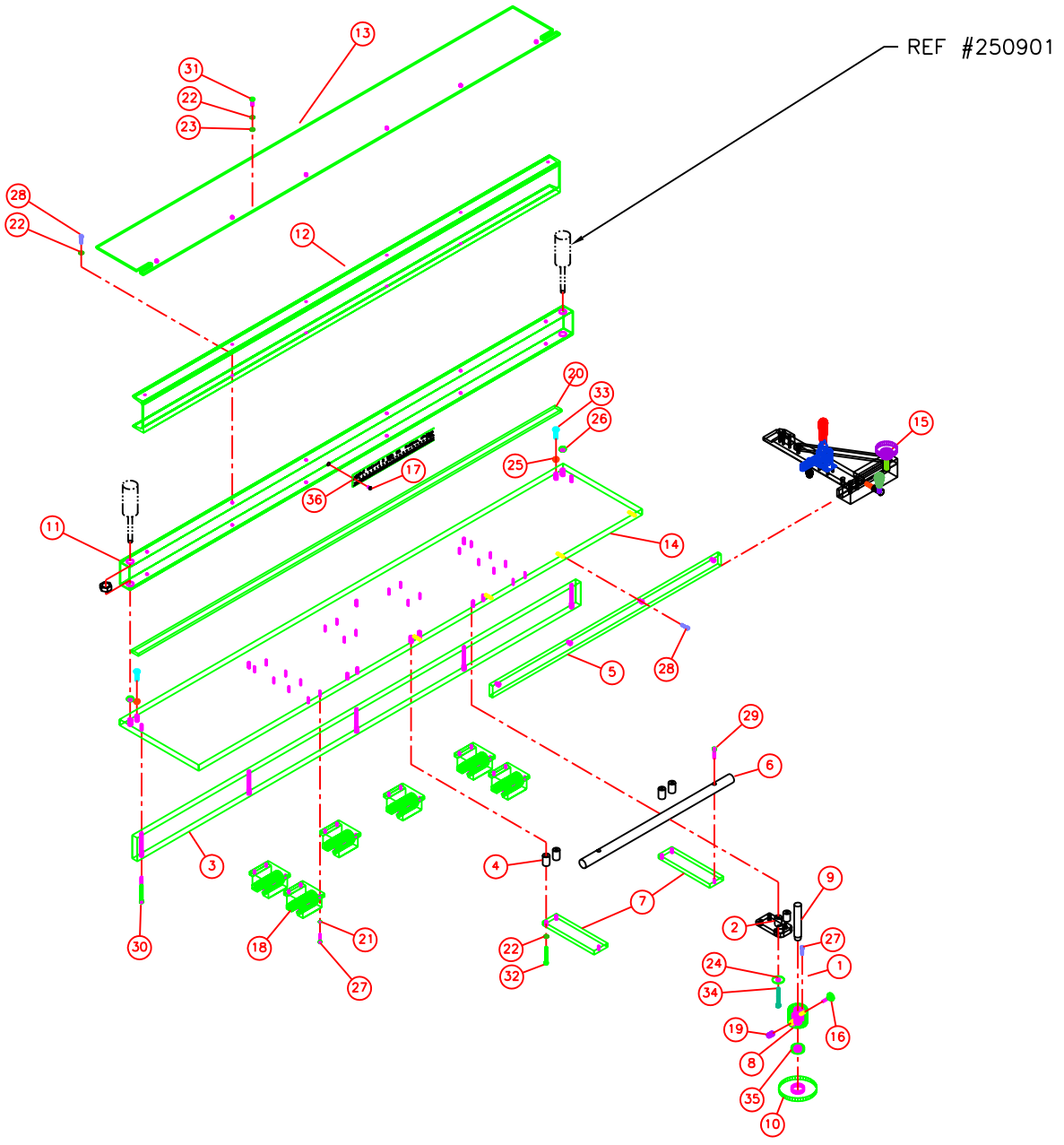
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Table Assembly Top

NO.	PART NUMBER	NAME	REQD
1	250218	ROLLERMOUNT BRACKET	1
2	250219	TEMPLATE ROLLER MOUNT SPACER	2
3	250223	TABLE SUPPORT BRACE - 50 IN.	1
4	250227	HANDLE SPACER	4
5	250228	FENCE SLIDE BAR	1
6	250229	HANDLE, TABLE	1
7	992003	BLOCK, PILLOW	4
8	992005	BLOCK, SHAFT SUPPORT	4
9	995057	BUMPER, RUBBER	4
10	996003	#10 LOCKWASHER	16
11	996005	1/4 LOCKWASHER	29
12	996009	3/8 LOCKWASHER	2
13	996019	3/8 WASHER, SUPER 9	16
15	996058	3/8-16 NUT	19
16	996104	10-32 X 1 SHCS	16
17	996112	1/4-20 X 1 SHCS	9
18	996122	1/4-28 X 1-1/2 SHCS	10
19	996452	3/8-16 X 3-1/2 TAP BOLT	8
20	996021	1/4 AN FLATWASHER	8
21	996505	3/8-16 X 1-1/4 HHB	2
22	996511	3/8-16 X 3 HH TAP BOLT	2
23	995516	3/8-16 X 5-1/2 HH TAP BOLT	1
24	250330	BRACE, TABLE	1
25	250323	ACTUATOR, SAFETY SWITCH	1
26	996026	5/16 SUPER 9 FLATWASHER	1
27	996118	1/4-20 X 2-1/2 SHCS1/4-20 X 1 HHB	5
28	996477	1/4-20 X 2-1/2 SHCS1/4-20 X 1 HHB	20

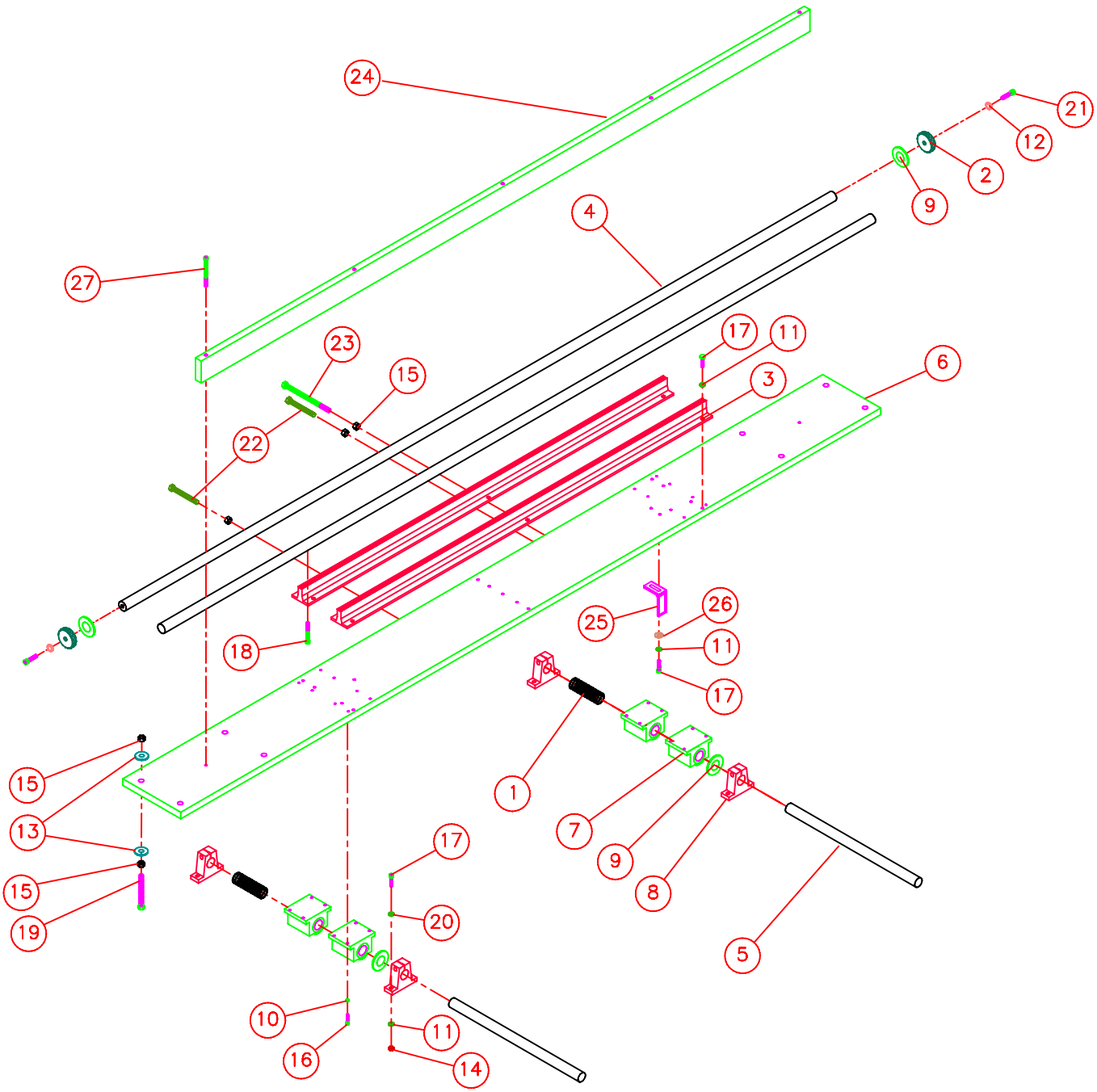
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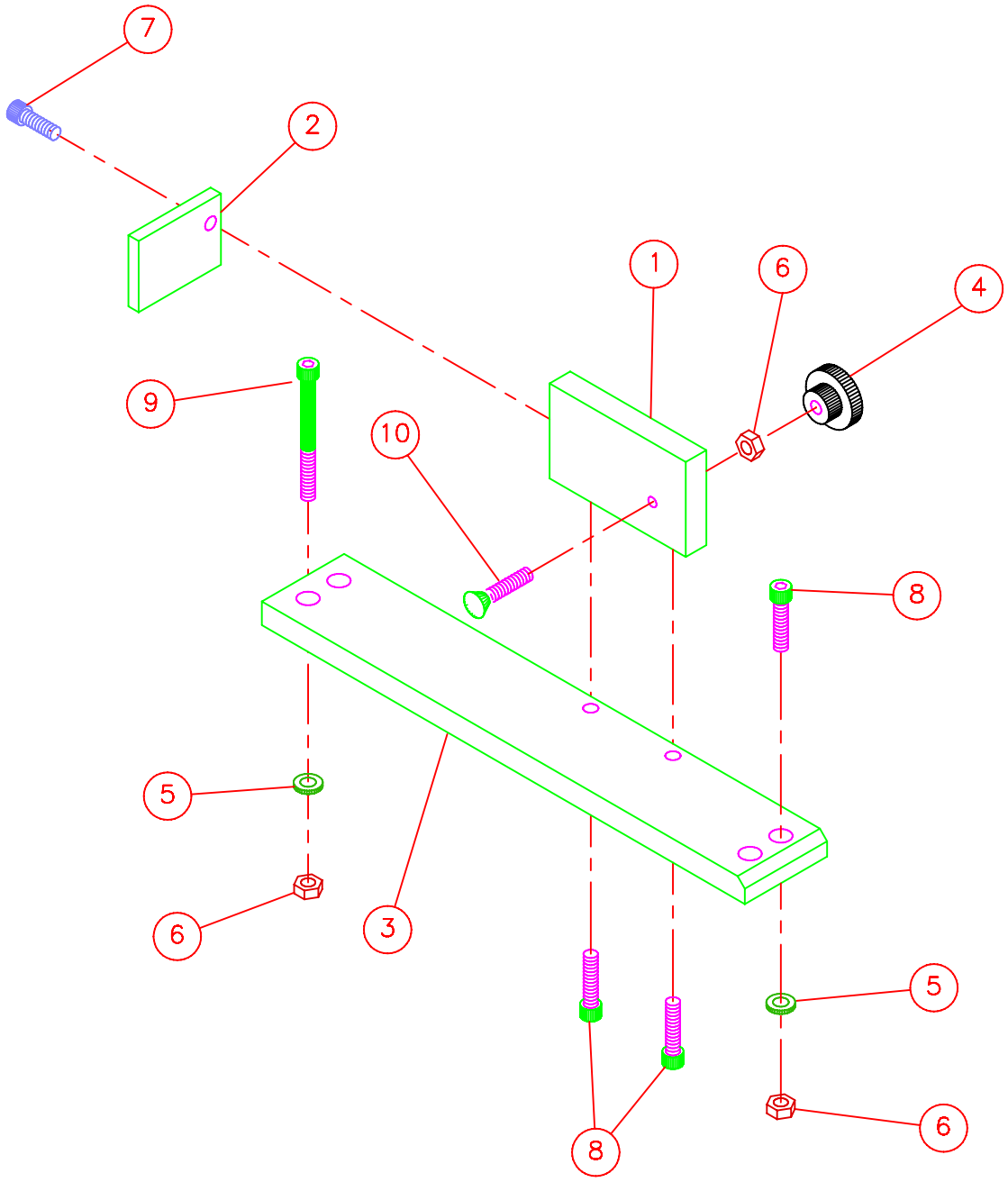
Table Assembly Bottom

NO.	PART NUMBER	NAME	REQD
1	250236	SPRING, TABLE RETURN	2
2	250250	STOP, LATERAL TABLE	2
3	250262	RAIL, SHAFT	2
4	250309	SHAFT, 92 INCH	2
5	992163	SHAFT	2
6	250315	PLATE, BOTTOM - 50 INCH	1
7	992003	BLOCK, PILLOW	4
8	992005	BLOCK, SHAFT SUPPORT	4
9	995057	BUMPER, RUBBER	4
10	996003	#10 LOCKWASHER	16
11	996005	1/4 LOCKWASHER	29
12	996009	3/8 LOCKWASHER	2
13	996019	3/8 WASHER, SUPER 9	16
14	996052	1/4-20 NUT	8
15	996058	3/8-16 NUT	19
16	996104	10-32 X 1 SHCS	16
17	996112	1/4-20 X 1 SHCS	9
18	996122	1/4-28 X 1-1/2 SHCS	10
19	996452	3/8-16 X 3-1/2 TAP BOLT	8
20	996021	1/4 AN FLATWASHER	8
21	996505	3/8-16 X 1-1/4 HHB	2
22	996511	3/8-16 X 3 HH TAP BOLT	2
23	995516	3/8-16 X 5-1/2 HH TAP BOLT	1
24	250330	BRACE, TABLE	1
25	250323	ACTUATOR, SAFETY SWITCH	1
26	996026	5/16 SUPER 9 FLATWASHER	1
27	996118	1/4-20 X 2-1/2 SHCS1/4-20 X 1 HHB	5
28	996477	1/4-20 X 2-1/2 SHCS1/4-20 X 1 HHB	20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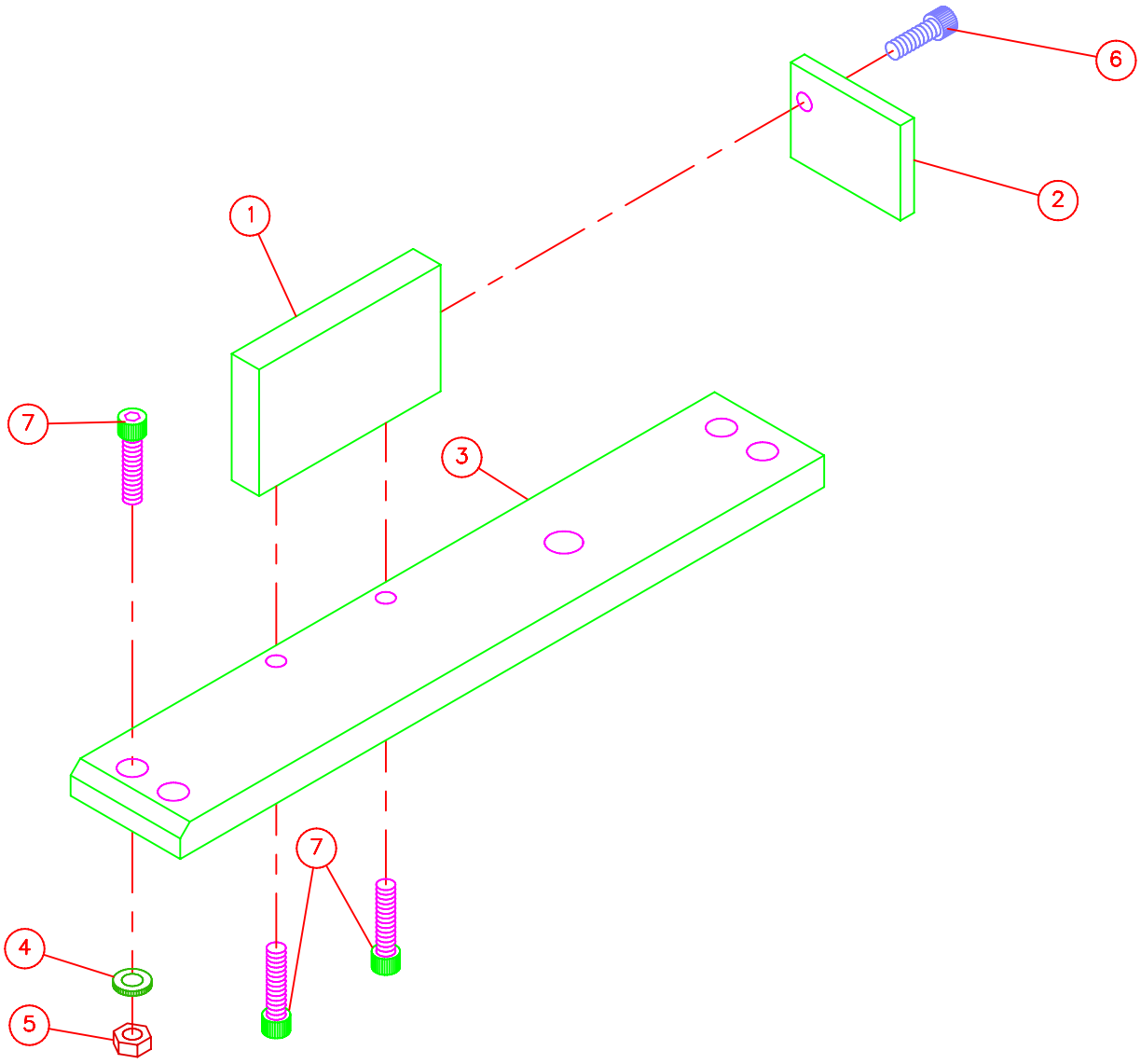
Template Mount Right

NO.	PART NUMBER	NAME	REQD
1	250245	BAR, TEMPLATE LOC (RIGHT)	1
2	250249	PLATE, TEMPLATE MOUNT BACK	1
3	250272	MOUNT, TEMPLATE BOX (RIGHT)	1
4	995003	KNOB, SMALL	1
5	995005	1/4 LOCKWASHER	4
6	996052	1/4-20 NUT	5
7	996111	1/4-20 X 3/4 SHCS	1
8	996112	1/4-20 X 1 SHCS	4
9	996118	1/4-20 X 2-1/2 SHCS	2
10	996382	1/4-20 X 1-1/2 FLATHEAD SCREW	1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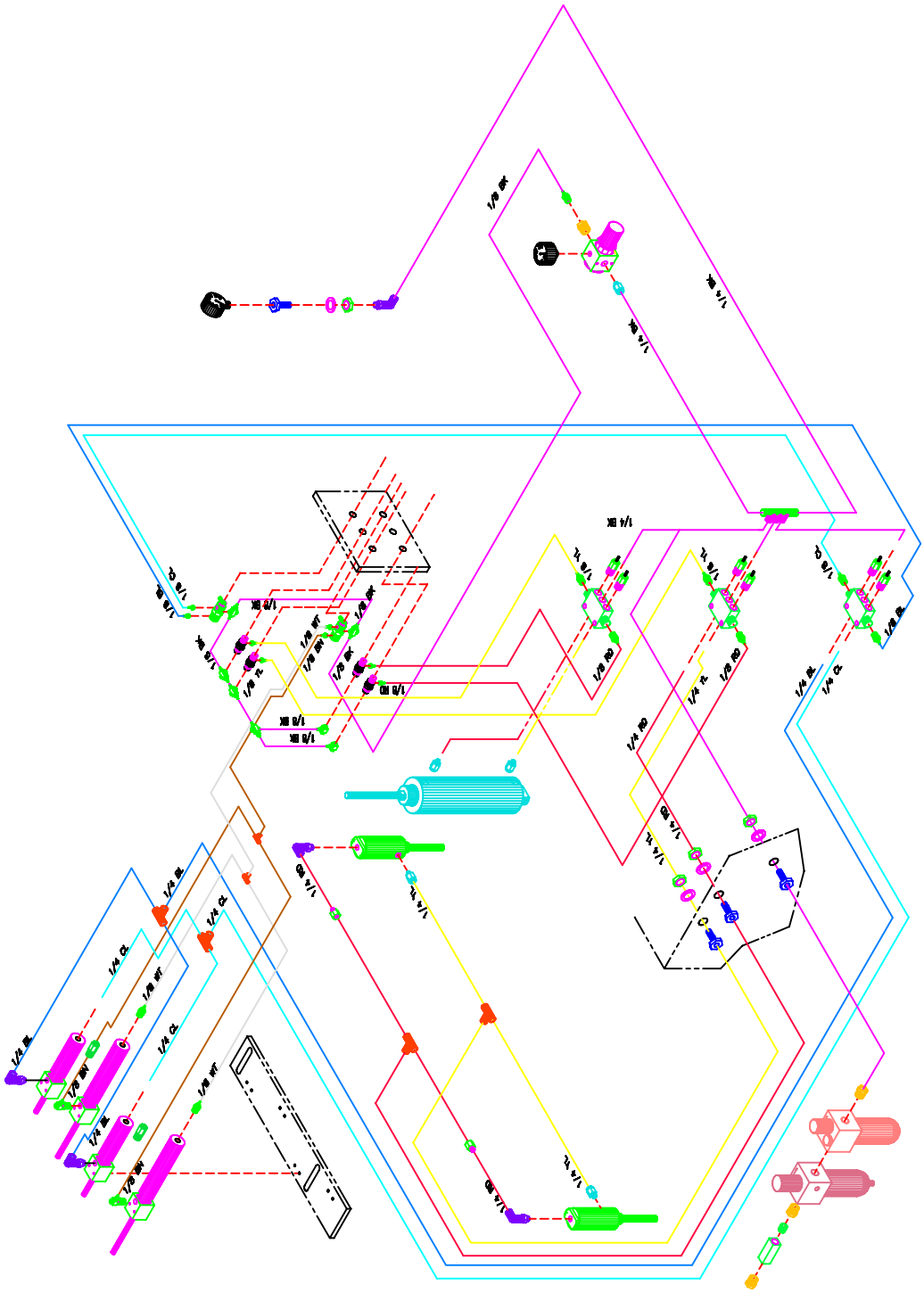
Template Mount Left

NO.	PART NUMBER	NAME	REQD
1	250247	BAR, TEMPLATE LOCK (LEFT)	1
2	250249	PLATE, TEMPLATE MOUNT BACK	1
3	250269	BODY, TEMPLATE MOUNT (LEFT)	1
4	996005	1/4 LOCKWASHER	4
5	996052	1/4-20 NUT	4
6	996111	1/4-20 X 3/4 SHCS	1
7	996112	1/4-20 X 1 SHCS	6

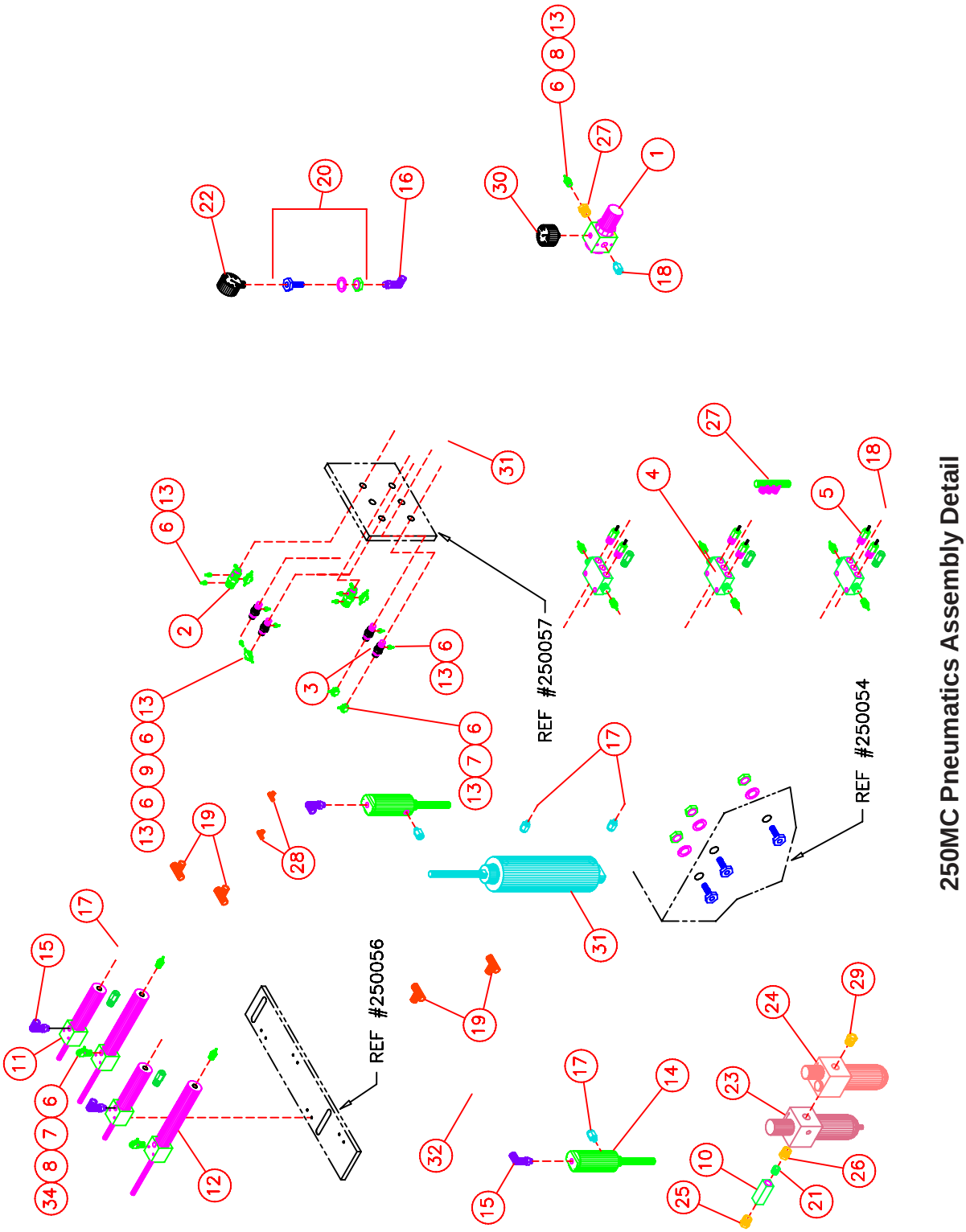
Appendices

Pneumatics



250MC Pneumatic Wiring Diagram

Electrical Schematics:



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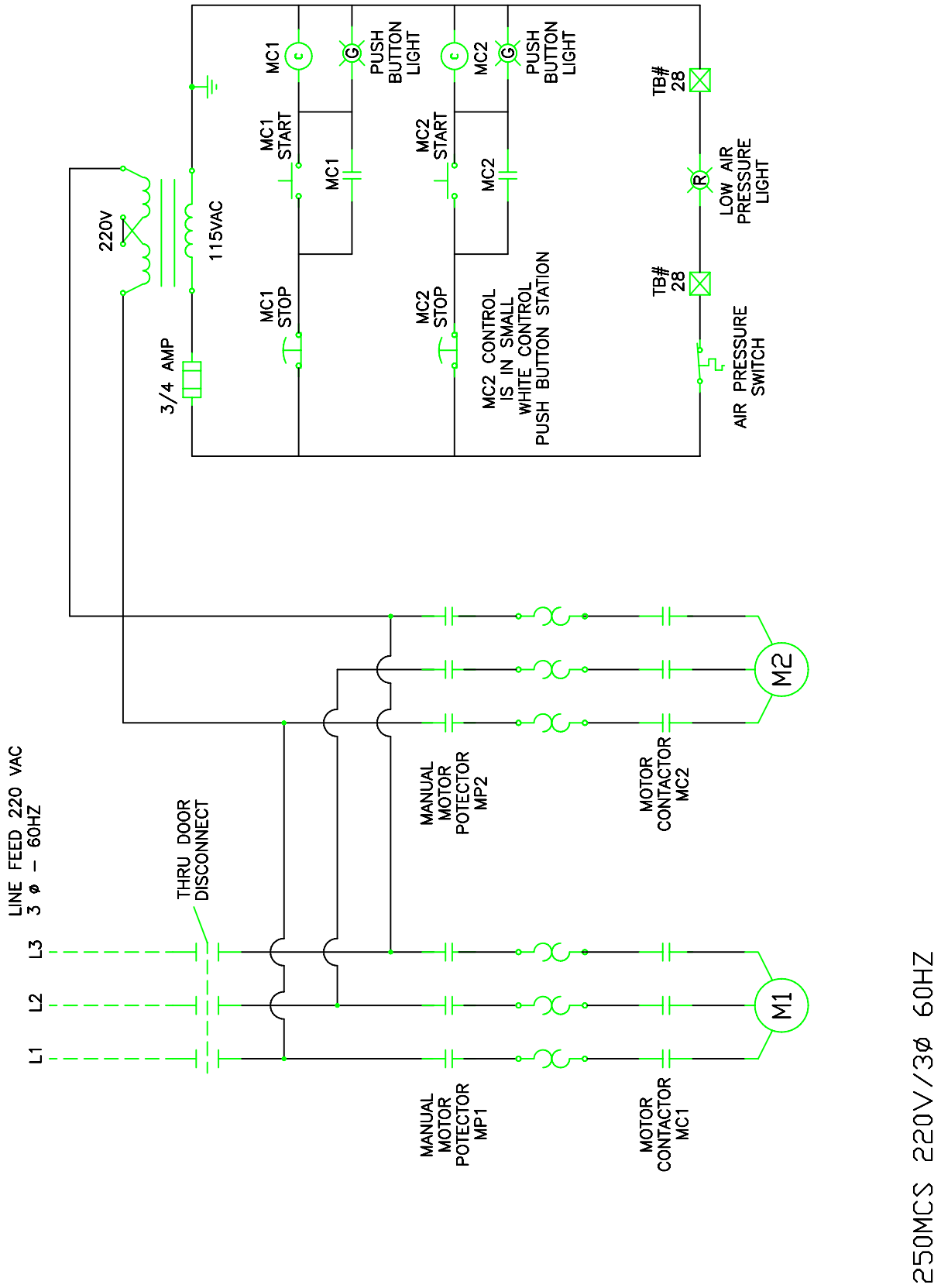
Appendices

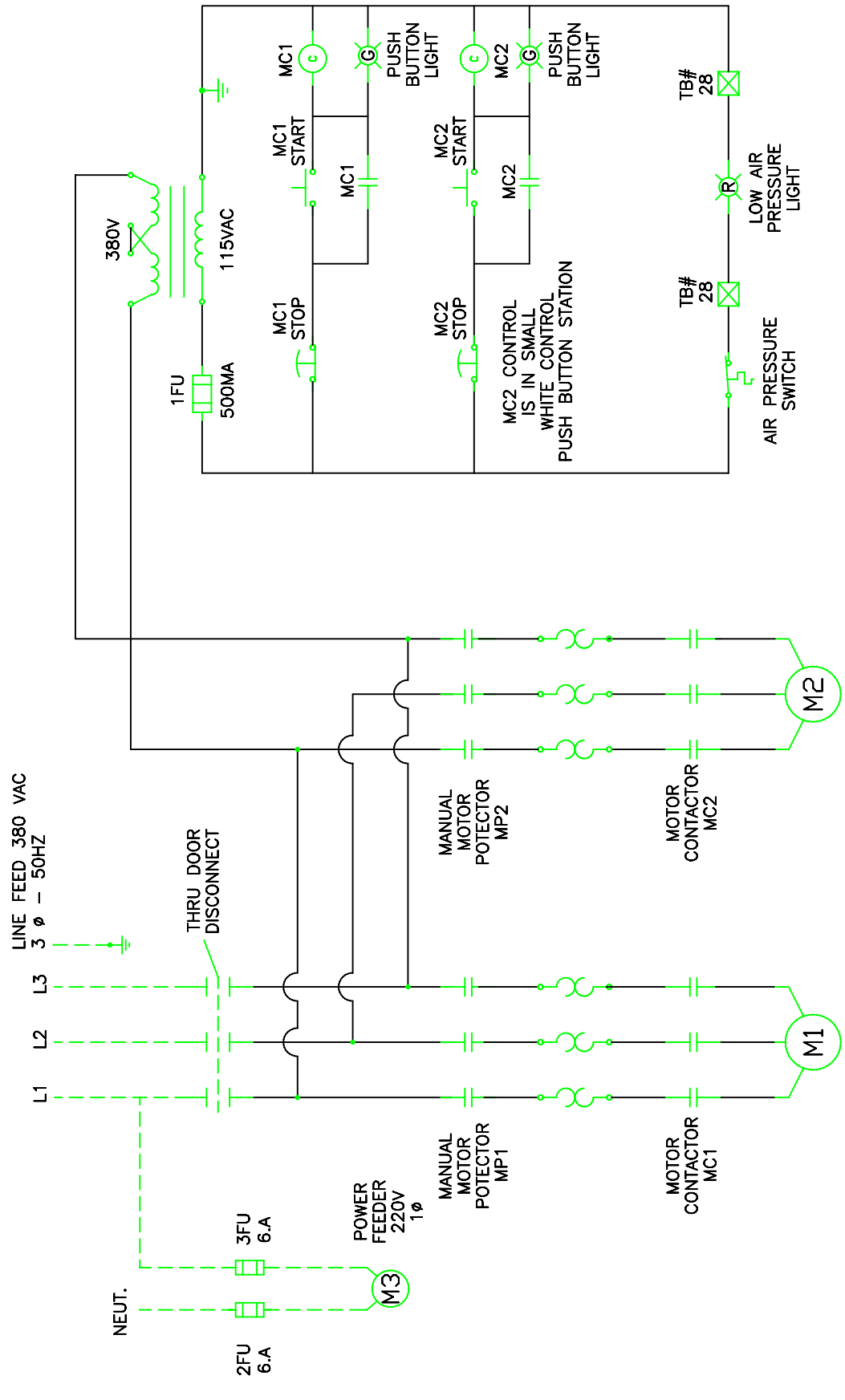
Electronic Control Instructions:

1. Always lockout electrical systems first

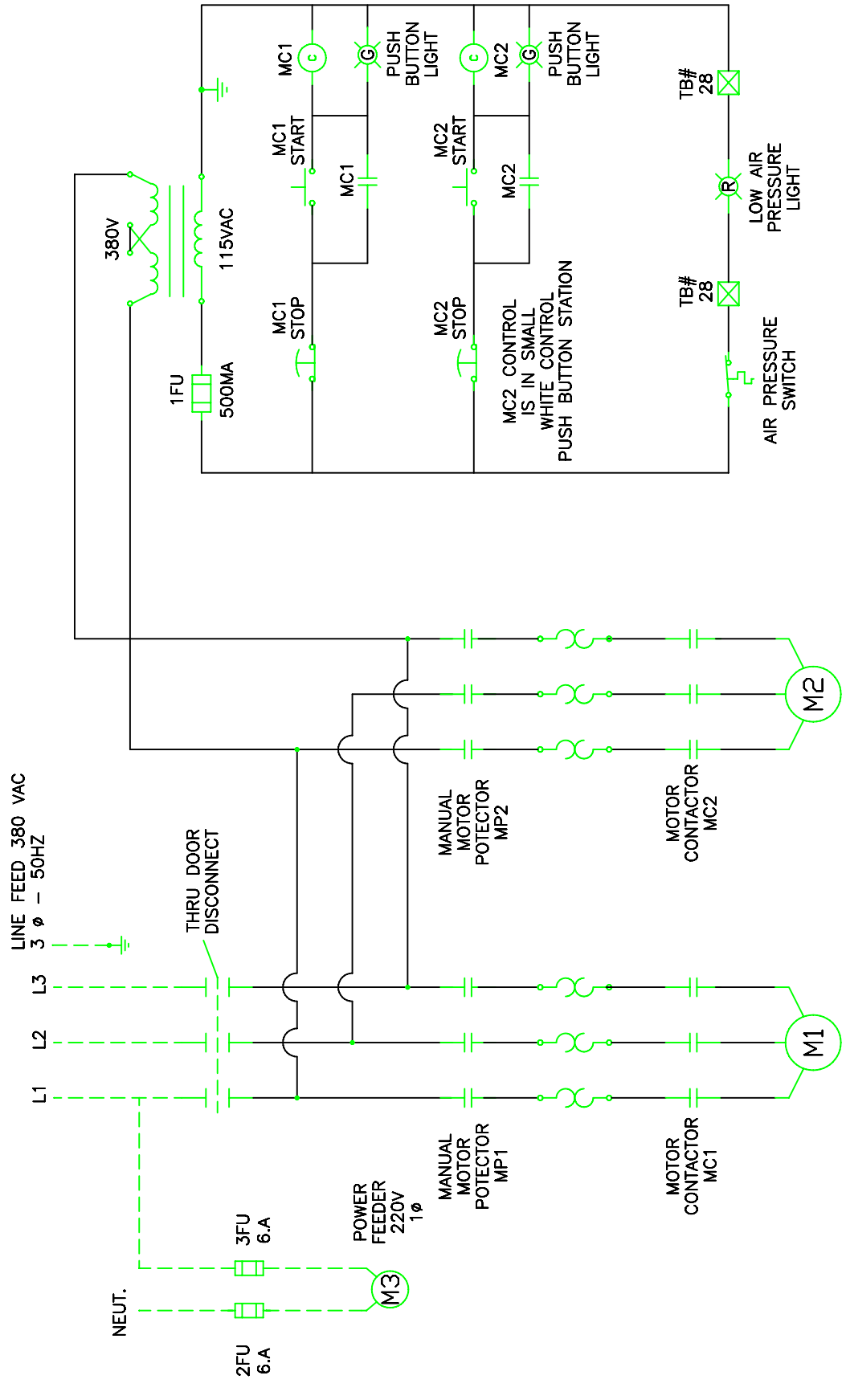
2. Use the following schematics to assist with any electrical operation

Electrical Schematics:





250MCS 380V/3ø 50HZ


380V
115VAC
1FU
500MA
MC1
MC1 START
MC1 STOP
MC1
PUSH BUTTON LIGHT
MC2
MC2 START
MC2 STOP
MC2
PUSH BUTTON LIGHT
MC2 CONTROL IS IN SMALL WHITE CONTROL PUSH BUTTON STATION
TB# 28
TB# 28
LOW AIR PRESSURE LIGHT
AIR PRESSURE SWITCH
LINE FEED 380 VAC 3 ø – 50HZ
THRU DOOR DISCONNECT
L1
L2
L3
NEUT.
2FU 6.A
3FU 6.A
POWER FEEDER 220V 1ø
M3
MANUAL MOTOR POTECTOR MP1
MOTOR CONTACTOR MC1
M1
MANUAL MOTOR POTECTOR MP2
MOTOR CONTACTOR MC2
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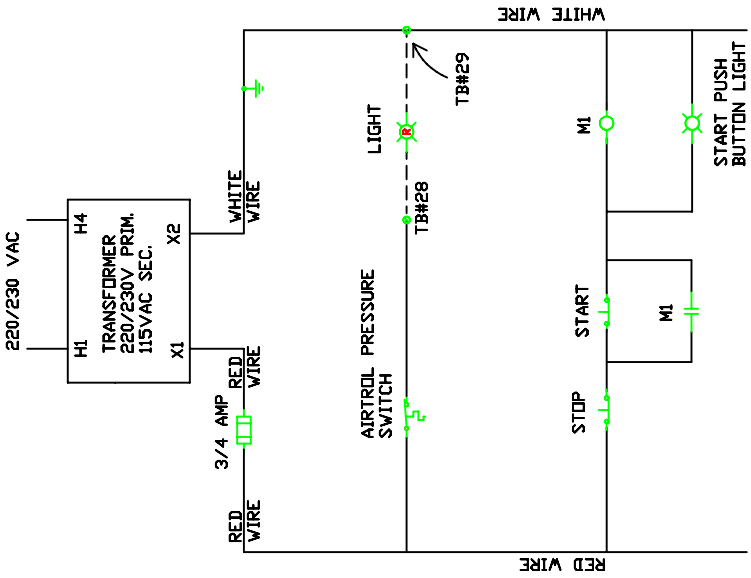
250MCS 380V/3ø 50HZ


WHITE WIRE
TB#29
LIGHT
M1
START PUSH BUTTON LIGHT
220/230 VAC
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TRANSFORMER 220/230V PRIM. 115VAC SEC.
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WHITE WIRE
TB#28
RED WIRE
3/4 AMP
AIRTROL PRESSURE SWITCH
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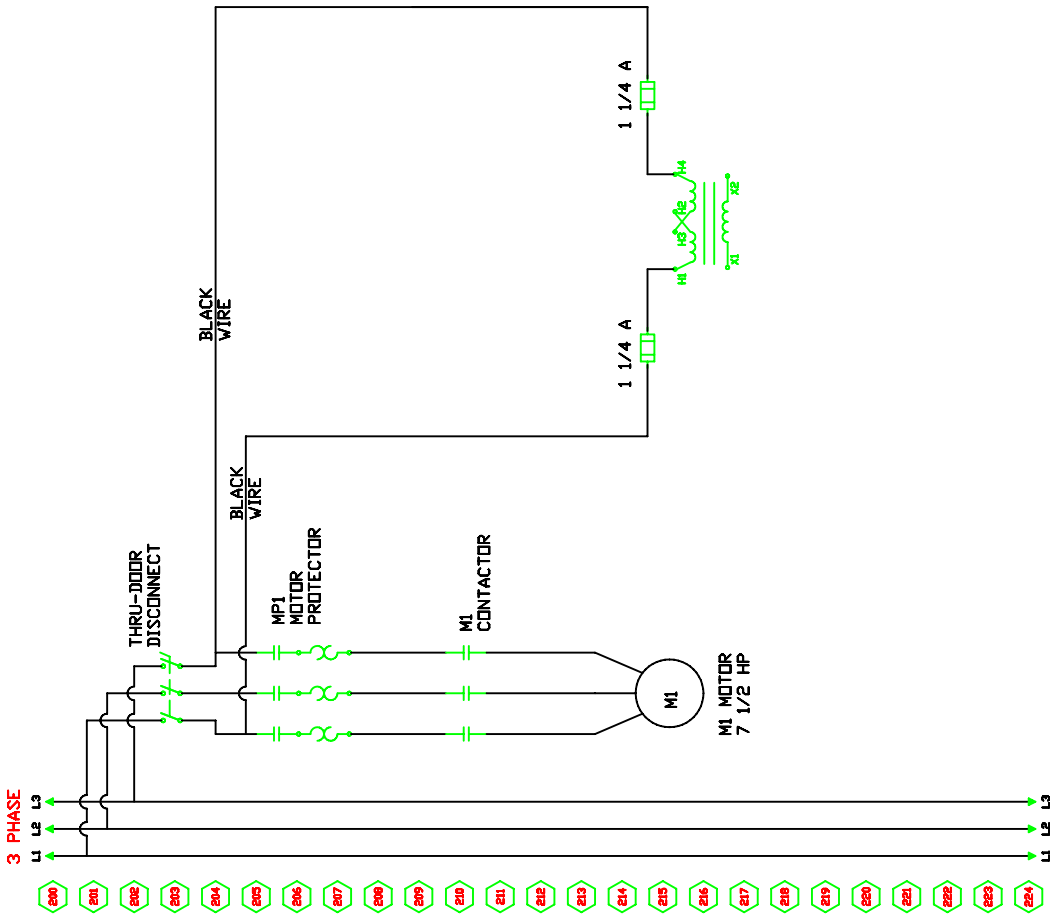
RED WIRE


1 1/4 A
BLACK WIRE
1 1/4 A
BLACK WIRE
THRU-DOOR DISCONNECT
MP1 MOTOR PROTECTOR
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L1 L2 L3

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