

LAGUNA

DT-18 DOVETAIL MACHINE

Owner's Manual



Owner's Manual

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Updated January 2022

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LAGUNA *SuperMax*

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Letter to Woodworker

Thank you for your purchase of the **LAGUNA TOOLS DT-18, YC-480/ YC-480A CONTINUOUS DOVETAILER**. This continuous dovetailer is one of a family of unique machines proudly offered by Laguna Tools. Every Laguna machine is engineered for years of dependable service. Please feel free to contact Laguna Tools if you have a question or suggestion. We appreciate working with you and your choice of a Laguna Tools machine for your shop.

Regards, Torben Helshoj
President & Founder Laguna Tools

This operation manual describes the machine operation instructions, safety rules and maintenance instructions. The operator must read this manual book careful and understand all safety precautions to avoid damage on the machine and the operator.

General Information

SAVE THESE INSTRUCTIONS

Refer to them often and use them to instruct others.

Please read and understand all warnings and operation instructions before using any tool or equipment. Always follow basic safety precautions to reduce the risk of personal injury. Improper operation, maintenance or modification of tools or equipment could result in serious injury and property damage. There are certain applications for which tools and equipment are designed. This product should **NOT** be modified and/or used for any application other than for which it was designed.

NOTICE! It is important for you to read and understand this manual. The information it contains is provided for your safety while assembling and operating this machine.

Safety Signs and Call-Outs:



An imminently hazardous situation which, if not avoided, will result in death or serious injury.



A potentially hazardous situation which, if not avoided, could result in death or serious injury.



A potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTICE

A helpful tip from our technical staff. Sometimes displayed as **NOTICE!** instead.

- 1.) **KNOW YOUR MACHINE.** For your own safety, read the owner's manual carefully. Learn its application and limitations, as well as specific potential hazards pertinent to this machine.
- 2.) Make sure the machines are properly grounded. If the tool electrical plug has three prongs. It should be used with a three-hole electrical socket. If a three-prong to two-prong adapter is used, the adapter plug must be properly grounded. Do not remove or otherwise disable the third plug.
- 3.) **KEEP GUARDS IN PLACE IN WORKING ORDER.** If a guard must be removed for maintenance or cleaning, make sure it is properly reattached before using the tool again.
- 4.) **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.
- 5.) **KEEP WORK AREA CLEAN.** Cutter areas and workbenches increase the likelihood of an accident.
- 6.) **DO NOT USE IN DANGEROUS ENVIRONMENT.** Do not use machines in damp or wet locations or expose them to rain. Keep work area well illuminated.
- 7.) **KEEP CHILDREN AWAY.** All visitors should be kept at a safe distance from work area.
- 8.) **MAKE WORKSHOP CHILDPROOF.** With padlocks, master switches, or by removing starter keys.
- 9.) **DO NOT FORCE THE MACHINE.** It will do the job better and be safer at the rate for which it was designed.
- 10.) **USE THE RIGHT TOOLS.** Do not force the machine or attachment to do a job for which they were not designed. Contact the manufacturer or distributor if there are any questions about the tool's suitability for a particular job.
- 11.) **WEAR PROPER APPAREL.** Avoid loose clothing, gloves, neckties, rings, bracelets, or jewelry, which could be caught in moving parts. Slip-proof footwear is recommended. Wear protective hair covering to contain long hair.
- 12.) Always use safety glasses. Also use face or dust mask if operation is impact resistant lenses. They are not safety glasses.
- 13.) **SECURE WORK.**

- 14.) Always keep proper footing and balance.
- 15.) **MAINTAIN MACHINE IN TOP CONDITION.** Keep machine clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- 16.) **DISCONNECT MACHINE FROM POWER SOURCE.** Before serving and when changing accessories, or when mounting and remounting motor.
- 17.) Avoid accidental starting. Make sure switch is in the "off" position before plugging in power cord.
- 18.) Use recommended accessories. Consult the owner's manual for recommended accessories.
- 19.) Check damage parts. Before further use of the machine, a ground or other part that is damaged should be carefully checked to make sure that it will operate properly and perform its intended function. Check for alignment of moving parts, mounting, and any other condition that may affect its operation. Guards or other parts that are damaged should be properly repaired or replaced.
- 20.) **NEVER LEAVE MACHINE RUNNING UNATTENDED. TURN POWER OFF.** Do not leave the machine until it comes to a complete stop.
- 21.) Do not use any machine while under the effects of drugs, alcohol, or any medication.
- 22.) Always wear a face or dust mask it operates a lot of saw dust and / or wood chips. Always operate the machine in a well-ventilated area and provide for proper dust removal. Use a wood dust collection system whenever possible.
- 23.) There must be safety lock on the machine. When the safety cover is opened, all the motions on the machine should stop immediately.
- 24.) This machine is used for cutting wood materials only, such as solid wood or plywood, or MDF wood. Do not apply this machine for cutting other materials, like metal, or plastic, or alloy.

Machine Features:

The Laguna DT18 Dovetail machine creates perfect dovetail joints effortlessly at a production rate of approximately 40-50 boxes per hour.

Dovetail joints are widely recognized as one of the strongest and most durable joints in woodworking and add value to users' cabinet jobs.

This machine cuts the pins and tails separately or at the same time to speed up production. Individual pneumatic clamps allow users to cut two joints in one pass or to work on wide panels for furniture.

The collet chuck makes bit changes fast and easy and increases cutter life. Adjustments are read on individual scales for quick, repeatable setups.

The centralized control panel makes the operation easy and automatic; the operator just needs to load the parts and start. This machine is assured to increase your profits and productivity.

Safety Rules



CAUTION

This machine is used for woodcutting only.

- 1.) This machine is designed for producing indent Dovetails for drawers and various furniture elements. This machine is equipped with a Spindle which allows cutting of indents of adjustable height. The machine can cut single Male or Female Workpieces, or both simultaneously.
- 2.) The Locking and Release of the pieces take place manually by means of Pneumatic Valves.
- 3.) The machine can work at three different Feed Speeds.
- 4.) Controls are located on a built-in Control Panel.

***It is requested to perform cutting within the rated machine capacity. Any other application which the machine is not designed for will be considered out of its normal application range.**

ADDITIONAL SAFETY RULES:

- 1.) Remove all the servicing tool kits before servicing the machine.
- 2.) Always keep cutter sharp.
- 3.) Never clean or remove chips while the machine is running.
- 4.) Learn the cutter application and limitation as well as the specific potential hazard peculiar to it.
- 5.) The double end tenoner is designed for cutting wood material only. Do not apply this machine for cutting other materials.
- 6.) Never leave machine running unattended. Turn power “OFF” and wait until the machine comes to a complete stop before you leave.
- 7.) Do not wear gloves or loose clothing.
- 8.) When the machine is working, do not bend over to check the cutting condition.
- 9.) Tighten the cutter securely.

NOTICE

****The machine can cause serious injury unless certain precautions are carefully observed. Some important safety rules are listed below****

- 1.) You must not attempt to operate the machine until you have received instructions from your instructor.
- 2.) Before operating the machine, be sure you know how to stop it quickly. It is just as important to know how to stop a machine as to start it.
- 3.) Do not lean against or rest your hands on the moving table. This careless habit may cut your fingers someday.
- 4.) Keep your fingers and hands away from moving cutters. There is never any reason to place your fingers near a turning cutter. Stop the machine first.
- 5.) Never wear long sleeves or sweaters while working on the machine. Always wear safety glasses to protect your eyes.
- 6.) It is dangerous to use cutters, wrenches and other tools which do not fit the machine properly.
- 7.) When using large wrenches, be sure to brace yourself. If the wrench slips or nut loosens suddenly, you can be injured.
- 8.) It is very dangerous to use rags, cotton waste, or cleaning brush near a moving cutter.
- 9.) Never attempt to set up work, adjust, or try to measure work while the cutter is turning. Stop the machine first.
- 10.) When removing cutters, always hold a rag or cloth over the cutter to prevent being cut.
- 11.) Do not attempt to lift heavy attachments alone. Get help.
- 12.) Never permit another person to start or stop a machine for you.
- 13.) When mounting the arbor support keep your fingers away from the bearing hole.

Machine Specifications

MACHINE SPECIFICATIONS		
DT-18 Dovetail Machine: YC-480/YC-480A		
	YC-480	YC-480A
Tenon Thickness	Min. 10MM, Max. 20MM or Min. 3/8 IN., Max. 3/4 IN.	Min. 10MM, Max. 20MM or Min. 3/8 IN., Max. 3/4 IN.
Tenon Width	Min. 10MM, Max. 18MM or Min. 3/8 IN., Max. 3/4 IN.	Min. 10MM, Max. 18MM or Min. 3/8 IN., Max. 11/16 IN.
Tenon Depth	Min. 10MM, Max. 20MM or Min. 3/8 IN., Max. 3/4 IN.	Min. 10MM, Max. 20MM or Min. 3/8 IN., Max. 3/4 IN.
Spindle Vertical Adjustment	30MM or 1 3/16" IN.	30MM or 1 3/16" IN.
Max. Workpiece Sizes	L.1500MM or , 59" IN. W.480MM or 19" IN.	L.1500MM or , 59" IN. W.480MM or 19" IN.
Table Tilting Angle	N/A	-10°~+20°
Clamping Equipment	Horizontal	Horizontal
Collect Chuck Capacity	Ø12MM or Ø.50 IN.	Ø12MM or Ø.50 IN.
Numbers of Air Clamps	4pcs	4pcs
Spindle Speed	21,500 RPM (RPM-Revolutions per Minute)	21,500 RPM (RPM-Revolutions per Minute)
Spindle Motor	2 HP (HP-Horse Power) 220V 3-Phase	2 HP (HP-Horse Power) 220V 3-Phase
Feed Motor	2 HP (HP-Horse Power) 220V 3-Phase	2 HP (HP-Horse Power) 220V 3-Phase
Working Air Pressure	6 BAR or 87 psi	6 BAR or 87 psi
Total Horsepower	3 kW (4HP)	3 kW (4HP)
Dust Hood Outlet Diameter	ø3" Dia.(Inches)-1 Port	ø3" Dia. (Inches)-1 Port
Machine Dimensions (L*W*H)	1270*780*1330MM 50"IN.x30 11/16"IN.x52 3/8"	1270*780*1330MM 50"IN.x30 11/16"IN.x52 3/8"
Packing Dimensions(L*W*H)	1370*880*1450MM 53 15/16"x34 5/8"x57 3/32"	1370*880*1450MM 53 15/16"x34 5/8"x57 3/32"
Net Weight	410KGS or 902 Lbs.	410KGS or 902 Lbs.
Gross Weight	460KGS or 1012 Lbs.	460KGS or 1012 Lbs.
**Specification and Design Characteristics are subject to change without prior notice.		

Helpful Definitions:

Tenon: A projecting member in a piece of wood or other material for insertion into a mortise to

Horse-Power (HP): A unit of measurement of power, or the rate at which work is completed. Typically used as a reference to the output of engines or motors.

Bar: a metric unit of pressure, but not part of the International System of Units (SI). It is defined as exactly equal to 100,000 Pa (100 kPa), or slightly less than the current average atmospheric pressure on Earth at sea level (approximately 1.013 bar).

Pounds per Square Inch (PSI): a unit of pressure expressed in pounds of force per square inch area.

Volts (V): the electrical unit of voltage or potential difference. One volt is defined as energy consumption of one joule per electric charge of one coulomb.

Kilowatt (kW): One kilowatt is equal to one thousand watts. This unit is typically used to express the output power of engines and the power of electric motors, tools, machines, and heaters.

Delivery Protocol

Most large machinery will be delivering on a tractor trailer 48'-53' long. Please notify Sales Representative with any Delivery Restrictions. Customer is required to have a forklift (6000lb. or larger is recommended) with 72" forks or fork extensions and operator.

Bill of Lading Example (BOL):

Bill of Lading Number: 145787446

SPECIAL INSTRUCTIONS: For assistance, please call 833-8WE-SHIP

Handling Instructions: RMACR11096

Pickup Instructions: RMACR11096

Pickup Service(s): Liftgate Pickup, Residential Pickup

Note any visible damage, torn packaging, scuffs or any abnormal marks on the delivery receipt or Bill of Lading (BOL).

Unboxing

1.) When the Crate containing your newly purchased Laguna Tools DT-18 Dovetail Machine is delivered, it will be delivered "Curbside", in other words the Machine will be delivered in front of the Driveway of the Garage/Shop or Workspace. (****It is the Purchasers responsibility of moving the Machine into His or Hers Garage/Shop or Workspace.****)

2.) When moving the Crate one can use a "Pallet/Floor Jack" (See Picture Below), one can rent a "Pallet/Floor Jack" from any Hardware Store/Equipment Rental Facility or utilize several people to move the Crate into your Garage/Shop or Workspace.



3.) Acquire some standard tools for taking apart the Crate.

a) Hammer



b) Pry bar



c) Wire Cutters

d) Cordless Drill



2.) Cut all straps only on the Crate (If Any).



3.) Unscrew a series of Screws at the Base of Crate using a Cordless Drill.



Before installing be sure to clean the machine.

CLEANING THE MACHINE:

Remove the rust preventative oil from the machine. Use a soft cloth moistened with kerosene to remove the rust preventative oil.

Do not use gasoline or lacquer thinner for this purpose.

Machine Placement

NOTICE

Safety Rules for lifting machine:

- 1.) Make sure the machine is well balanced while in lifting.
- 2.) The machine can be lifted by a fork lifter or by a steel wire.
- 3.) Use enough capacity of fork lifter to raise or move the machine.
- 4.) Make sure the fork lifter protrudes over the bottom of the machine.
- 5.) Do not raise the machine too high as they may result in poor stability of the machine.
- 6.) It is suggested to ask another person to help guiding the way when using a fork lifter to move the machine.



MACHINE INSTALLATION LOCATION:

- 1.) The variety of voltage : 0.9-1.1 times to fixed voltage or (198V-242V).
- 2.) The variety of Electric Frequency: 0.9-1.01 times to the fixed frequency.
- 3.) Ambient temperature: 5 degrees C - 45 degrees C (41 degrees Fahrenheit- 113 degrees Fahrenheit).
- 4.) Environment humidity: not more than 50% at 40 degrees C or 104 degrees Fahrenheit (20 degrees C or 52 degrees Fahrenheit).
- 5.) Do not expose the machine under the sunshine or any lights with high temperature. Otherwise, the ambient temperature of the machine will raise as well.
- 6.) There must be no serious vibration on the floor or installation.
- 7.) The latitude: 0-100meters (0-328 ft.) elevation.
- 8.) When the machine moves or stores, the electric environment need to be ambient temperature -25°-55° (-13 degrees Fahrenheit-131 degrees Fahrenheit).
In 24 hours, it could endure the temperature 70° (158 degrees Fahrenheit).

kW	Volt	AMP	Broken Circuit	Power Wire
2.3 kW	220V/60HZ	9.5A	15A	3.5 m ²
2.3 kW	380V/50HZ	9.5A	15A	3.5 m ²
2.3 kW	440V/50HZ	9.5A	15A	3.5 m ²
2.3 kW	575/60HZ	9.5A	15A	3.5 m ²

Electrical Safety

CONNECT POWER WIRES:

1.) Before connecting the machine to your factory power source, be sure the voltage of your power source complies with the machine voltage.

The electric information for the machine, such as voltage, HZ pre-wired before shipment is indicated on the electric instruction label, attached on the machine.

2.) Put electric wire with R.S.T connecting.

3.) The machine must be properly grounded to prevent possible damage from electric shock.

4.) The machine must be properly grounded to prevent possible damage from electric shock-The ground is green.

5. The power wire connection job must be performed by a qualified electric technician.

6. After connecting, you must make sure if it connects in the correct point or not.

SAFETY RULES FOR THE ELECTRICAL CONTROL SYSTEM:

1.) All electrical/electronic trouble shooting, and repair should be made only by a personal who is properly trained and have adequate knowledge.

2.) Do not alter or bypass protective interlocks.

3.) Take extra precautions in some areas to prevent yourself from accidental grounding.

4.) When performing trouble shooting make sure the power source has been disconnected.

5.) Do not open the electric control panel unless it needs to check the electric components.

6.) Before applying power to any equipment it must be established without a doubt, that all persons are clear.

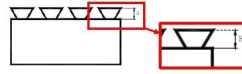
7.) Do not alter the electrical circuits unless authorized to do so by the machine manufacturer.

8.) When replacing electrical components, make sure they conform to the manufacturer's specifications, including proper color coding.

9.) All covers on junction box must be closed before leaving any job.

Operation

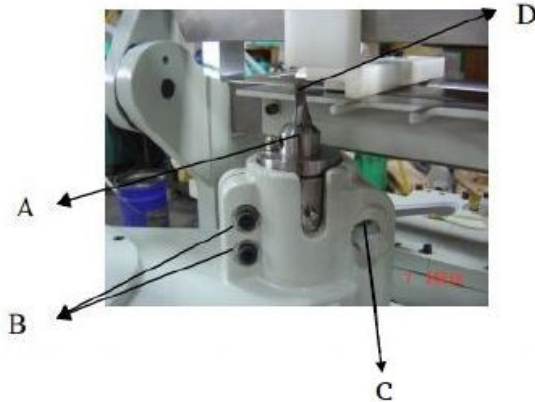
Adjusting the Height of Male Indent:



A1.) Adjusting the Height (H) of Male Indent

Loosen Screw (B) and then **Adjust Shaft (C)** could move the **Spindle (A)** in a **Up/Down-Ward motion**.

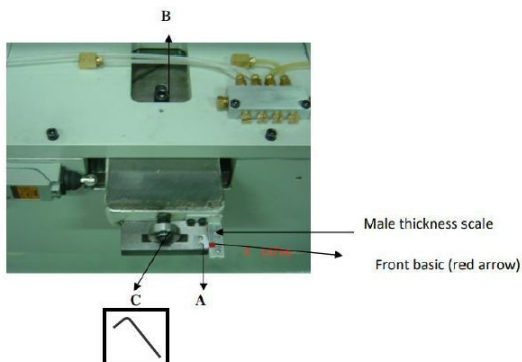
When you are adjusting the height, you must notice the **Height of Cutter head (D)**, to avoid the cutter head to against the board.



⚠ WARNING!

Make sure to position the milling cutter on the bottom of the spindle when adjust the height of workpiece. Failure to comply with this may result in damage of drill bit and positioning frame.

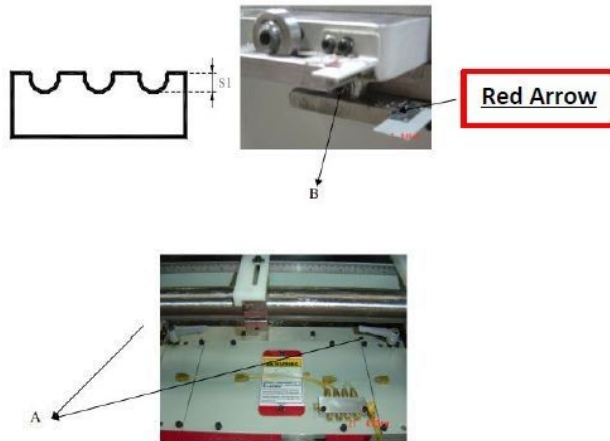
A2.) Adjusting the thickness(s) of male indent. Move the Mold (A), to positioned to the limited back. **Take off the Cover, Loosen the Screw (B), Adjust (C) with Hexagonal Wrench,** then tighten the cover.



⚠ WARNING!

Do not move the red arrow below zero--the bit and located magazine will break.

A3.) Adjusting the Female Indent Depth (S1) Position the support of chaser to the origin. **Loosen the 2-Two Wrenches (A)** for adjusting **(B)** to the desired depth. Tighten the wrenches finally.



A4.) Adjusting the Highness of Clamping. **Rotate Nut (B)** for adjusting the highness of **Actuator Assembly (A)**, to fit the wood piece thickness.

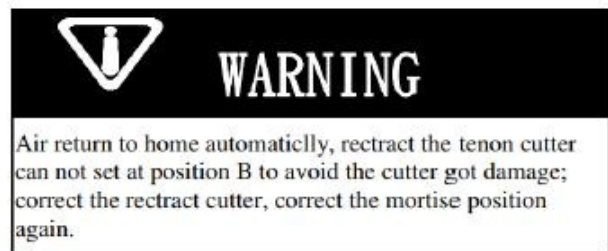
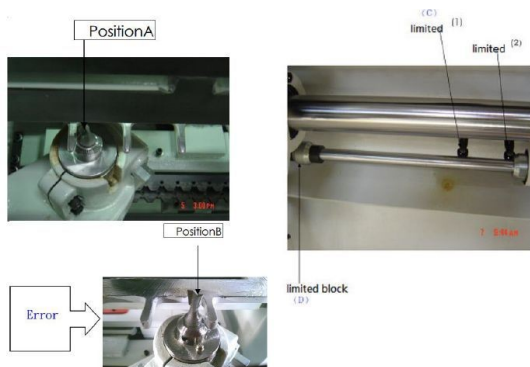


A5.) Adjusting the position of workpiece Decide the position of cutter workpiece first. **Position the Horizontal and Vertical Fixture the Screw (C)**. Please note that to match the front and side edges of the drawer, these two workpieces must be different in the height by half a pitch. (For example, the Pitch=25 MM, the difference=12.5MM).



A6.) Fully/ Half return Cutter Adjustment:

- 1.) The machine cutter stroke has two kind, fully or half stroke. It is referred to the wood length to selection.
- 2.) Long wood set fully return cutter, short wood set half cutter return, to save the nonworking time, to improve the speed.
- 3.) The return of the cutter was set by the stroke block. Block touch the limited switch (1) during feeding, the cutter returns to home.
- 4.) Set fully cutter return instruction: Loosen the screw on the sensor block, turn the block to the surface force inside, the block cannot touch the limited switch (1) during feeding, the cutter can run fully stroke then back to home.
- 5.) **Set half cutter return instruction:**
Loosen the screw on the sensor block, turn the block to the surface **force down** (as photo shows) during feeding, the block touches the limited switch (1) , then the cutter back to home.



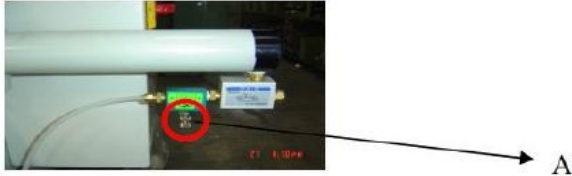
The cutter return can **set on A of located magazine**, it improves the speed in making small wood. Move the cutter to position (A), **Loosen the Limited Block (D)**, to the position to touch limited switch (C), stop auto return cutter and back to original position, notice to **correct position** on (A), to avoid the cutter hit **the located magazine** to damage.

⚠ WARNING!

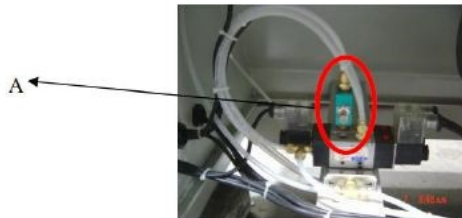
Air returns to home automatically, retract the tenon cutter can not set at position B to avoid the cutter

damage; correct the retract cutter, correct the mortise position again.

A7.) Adjusting the Wind of Cutter returned speed **Adjust the Regulator (A)** to reach the desired speed.



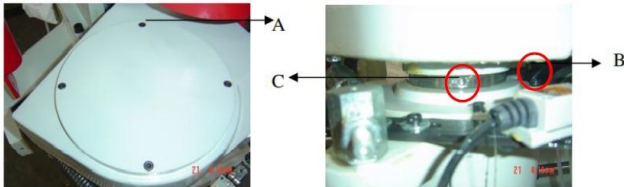
A8.) Adjusting the return speed of copy shaft **Adjust the Regulator (A)** to reach the desired speed.



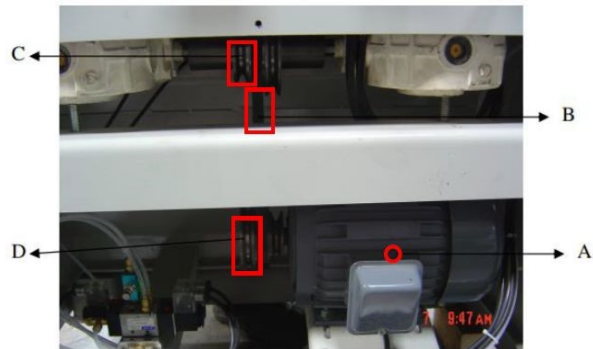
⚠ WARNING!

The return of the copy shaft should be kept adequately slow.

A9.) Adjusting the Spindle Belt, **Loosen Screw (A)** and takes off the cover of the motor. **Loosen screw (B)** and at **Rotate the Knob (C)** to obtain the proper tension of belt. Reposition the motor at the origin and tighten screw **(A) & (B)**.



A10.) Adjusting the speed of cutter travel Exchange the motor gear wheel (A), put the belt (B) on the suitable position of pulley (C, D). The mold turns faster when the belt is at left side. The mold turns slower when the belt is at right side.

**A11.) Auto Lubricator:**

Auto Lubricator (A) must remain the regular oil quantity, or it will make the mold get broken. If the broken cause there is not enough oil , the manufacturer will not be responsible for that.

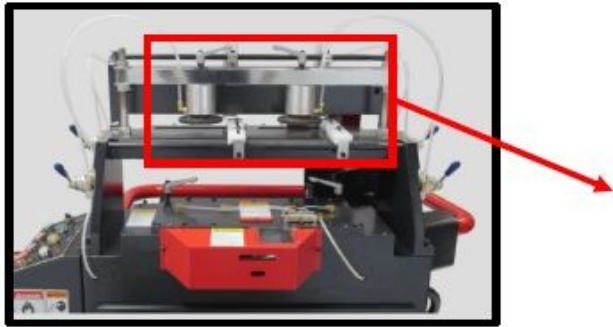


Clamping Equipment

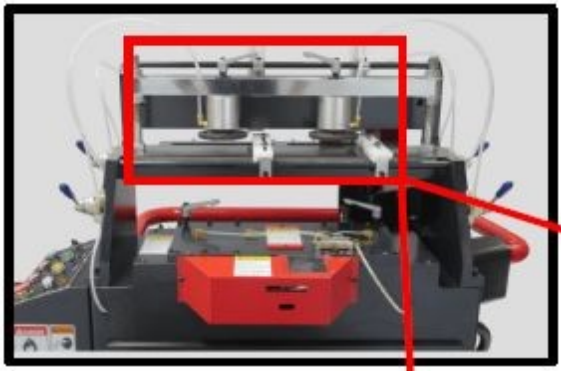
YC-480:

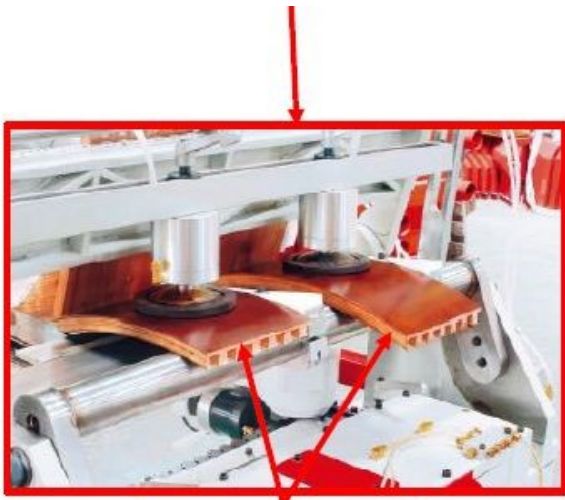


(For straight boards)



Straight/Curved Board:





Curved Board

Working Cycle

The suitable position of clamping workpieces should be with 4mm travel. The short travel prevents the operator's fingers from being caught.

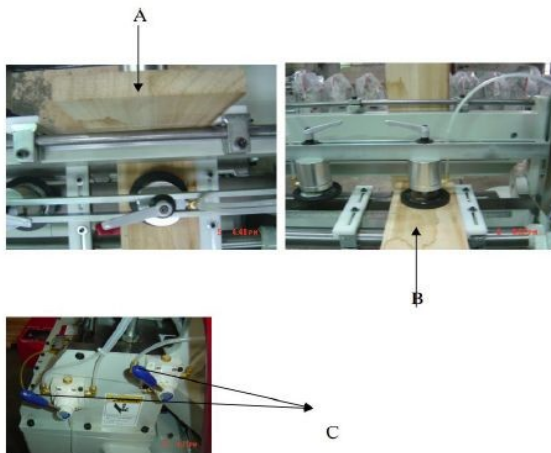
⚠ WARNING!

Pay attention when approaching the workpiece's clamping area. the clamping pressure is 0.7 m-pascal.

NOTICE! The machine could make male and female workpieces by semi-auto proceeding mode.

B1.) Simultaneous work of Male and Female Workpieces:

- A.) Put the workpiece on the Vertical (A) and Horizontal (B) table to make the male and female work.
- Lock the clamp by the manual value (A).
- B.) Push the Start Button for the rotating of cutter.
- C.) Push the Start Mold Cycle Button
- D.) Push the start, the machine performs the work cycle.

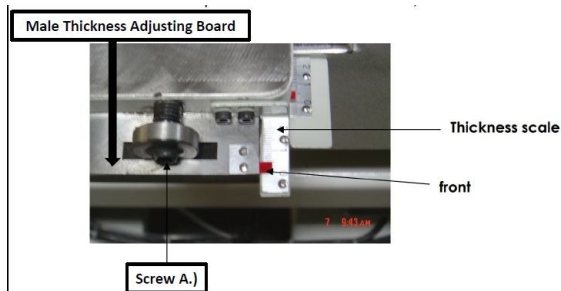


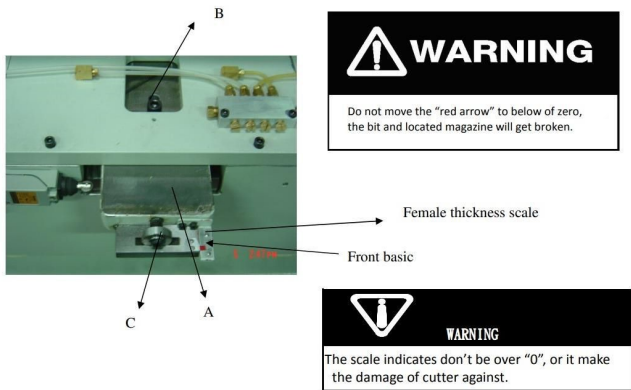
B2.) ADJUSTING THE THICKNESS OF THE WORKPIECE:

12.) Adjusting the thickness of Male Workpiece-

Adjusting the thickness of male workpiece, loosen the screw (B) of below picture, and turn the screw (A) by Hexagonal Wrench. The adjustment indicates by the scale.

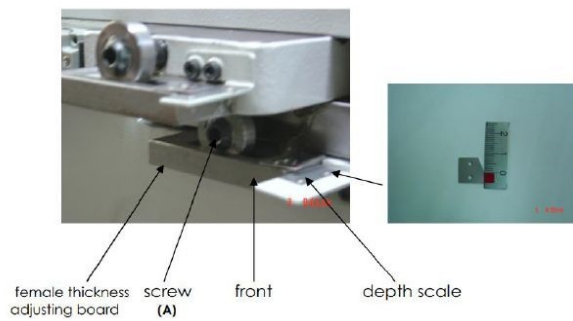
The front of male thickness adjusting board aim at the scale. The scale adjustment is bigger, the thickness would plus more. When it indicates "0", the thickness is the less.





13.) Adjusting the Thickness of Female Workpiece:

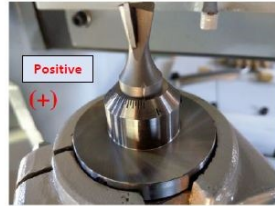
Adjusting the depth of female workpiece by handle (A) of first picture, you could turn the screw (A) by hexagonal wrench. The female adjusting screw is under the male adjusting screw. The adjustment indicates by the scale. The front of female depth adjusting board aim at the scale. The scale adjustment is bigger, the depth would plus more. When it indicates "0", the depth is the less.



WARNING!
The scale indicates don't be over "0", or it may damage the cutter.



The wood difference is subject to the tool		
Tool Height (H)	Male	Female
0	15.2	14.1
1	15.4	13.8
3	15.15	13.75
5	14.6	14.3
7	14.4	14.6
9	14.2	14.8
-1	14.9	14.3
-3	14.6	14.7
-5	14.35	14.8
-7	14.2	14.9
-9	14.2	14.8




To adjust the height of spindle when you make different wood thickness.






Control Panel



Control Panel-Function Description		
Switch	Description	Function
1.) 	MANUAL/AUTO MODE SELECTION SWITCH.	1.) Set this switch to left for performing manual operation. 2.) Set this switch to right for performing automatic operation. 3.) This switch should be used together with single/ continuous cycle switch (2).
2.) 	SINGLE/CONTINUOUS CYCLE SWITCH.	1.) When the switch (1) is set at manual mode, press this switch, the machine will perform one cycle cutting then stops. 2.) When the switch (1) is set at auto mode, press this switch, the machine will perform continuous cycles cutting. 3.) This switch should be used together with switch (1) manual / auto mode selection switch. 4.) This switch is effective only when cutter start switch (3) and driving plate start switch (5) have started.

Control Panel-Function Description		
Switch	Description	Function
3.) 	CUTTER START SWITCH.	1.) When this pressed, the cutter starts running.
4.) 	CUTTER STOP SWITCH.	1.) When this switch is pressed, the cutter stop running.
5.) 	DRIVING PLATE START SWITCH.	1.) When this switch is pressed, the driving plate starts moving, and the cutter moves forward.

Control Panel-Function Description		
Switch	Decription	Function
6.) 	DRIVING PLATE STOP SWITCH.	1.) When this switch is pressed, the driving plate stop moving, and the cutter movement stops.
7.) 	Power.	1.) When this main power switch located on the control, is turned ON, than this indication lamp lights on.
8.) 	EMERGENCY STOP SWITCH.	1.) During manual or automatic operation, if you need to stop the machine, press this switch. 2.) During operation, in case any abnormal motion occurs, press this switch immediately. 3.) When this restart the machine always remember to reset this switch. Turn rightward for resetting.

Page 2

Maintenance & Troubleshooting

The **CONTINUOUS DOVETAILER** will operate in good condition if a proper maintenance is made. Clean wood chips, dust dirt or debris every day when job is finished.

Do not allow chips to accumulate inside of the machine. Always keep cutter sharp.

*****If this machine is used in Quality Systems facility registered (ISO/QS 9001, TS16949, etc.), Please make sure to document these Maintenance Protocols into Facilities Preventive Maintenance Standards and or Operation Standards.*****

Maintenance Routine:

1.) Daily	1.) Clean the Machine. Clean Wood Chips. 2.) Apply the Oil on the Slide Side. 3.) End of the Work, Turn Off the Power.
2.) Weekly	1.) Check " Emergency STOP Button".
3.) Month	1.) When the Oil get pollution, change the Oil and Clean the Lubricator, then add into the Oil. 2. Check the Belt Loosen, and Adjust.

Troubleshooting: Electric and Controls

<u>Problem</u>	<u>Possible Cause</u>	<u>Correction</u>
1) Machine will not start	1) Power source failure 2) Master power switch not turned on	1) Check air pressure 2) Turn power source on
2) Motor will not start	1) Emergency stop switch locked 2) Thermal relay tripped 3) Switch burned out 4) Power wires loosened or damaged 5) Fuse burned	1) Reset it. 2) Reset it. 3) Reset it. 4) Tighten or replace them. 5) Replace it.
3) Motor will not run full speed	1) Power voltage too low 2) Motor damaged 3) Single phase running 4) Incorrect power wiring 5) Overload cutting	1) Test voltage 2) Check and repair it 3) Check fuse and wire 4) Replace with the correct size power wiring 5) Reduce cutting load
4) Motor overheating	1) Motor is dirty 2) Motor damaged	1) Clean it. 2) Check and repair it.

Troubleshooting: Cutter

Problem	Possible Cause	Correction
1) Burning mark on product	Cutter dulled	Sharpen it
2) Product surface not smooth	Cutter dulled	Sharpen it
3) Cutter rumbling	Poor cutter balance	Check cutter balance

ORDER REPLACEMENT PARTS:

The replacement parts may be ordered from your local distributor or the machine manufacturer. If the parts you need are not available from your local distributor, your order will be faxed to the machine manufacturer for expedited handling.

When ordering the replacement parts, always provides the following information:

- The model number and serial number of the machine.
- The desired parts numbers, see parts lists shown in the manual book.
- The parts name.
- Your desired quantity of the parts.

Dust Hood Outlet Connecting:

There is a dust hood outlet above the cutterhead.
Put the flexible rubber pipe on the dust hood outlet connecting.

⚠ WARNING!

DO NOT operate the machine before starting the dust hood outlet.

Replacing the Cutter

CUTTER SAFETY RULES:

- 1.) The operator should follow the instructions of cutter for safe use and adjustment.
- 2.) Do not exceed the allowable maximum speed of the cutter.
- 3.) Identify the cutter speed and direction is correct.
- 4.) Make sure the cutter is locked securely.

REPLACING THE CUTTER:

- 1.) Disconnect the machine from power source to prevent accidental starting.
- 2.) Put hexangular wrench to lose the cutterhead and lock the screw.
- 3.) Clean the cutter bore and the spindle before mounting a new cutter.
- 4.) After the cutter has been mounted reverse above procedures to return the machine to its original condition.

 WARNING!

The cutter is very sharp. Care should be taken when replacing the cutter.

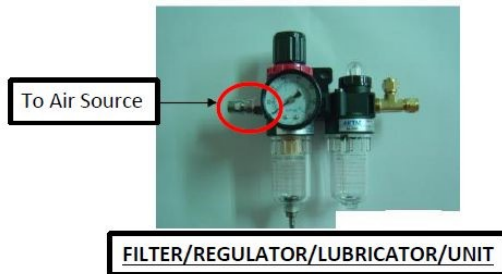
Filter, Regulator, Lubricator Maintenance

FILTER/REGULATOR/LUBRICATOR UNIT (F.R.L.):

The **Filter/Regulator/Lubricator Combination Unit (F.R.L.)** is provided at the right side of the machine which is used for connecting to the air source.

The Air Connector Size is 3/8".

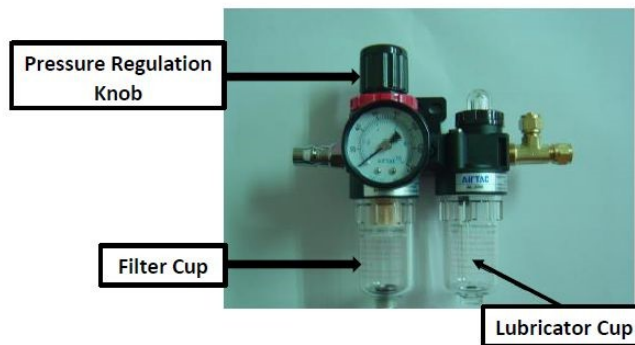
Use a 3/8" Flexible Air Hose to connect the Air Connector to the Air Source.



1.) **SETTING AIR PRESSURE:** This machine requires a 6-8 kg/cm³. Set the air pressure by turning the pressure regulation knob. Pull it up before setting pressure. Push it down after pressure has been set. **Note: The machine is equipped with a pressure switch for safety protection. When the air pressure does not yet reach 6-8 kg/cm³, the machine could not start.**

2.) **LUBRICATOR CUP:** Fill the oil into the lubricator cup up to 80% of the full cup capacity, which may ensure air circuit get proper lubrication effect.

3.) **FILTER CUP:** The moisture contained in the air will condense and collect in the filter cup. The water needs to be released when the water level reaches to a certain level.

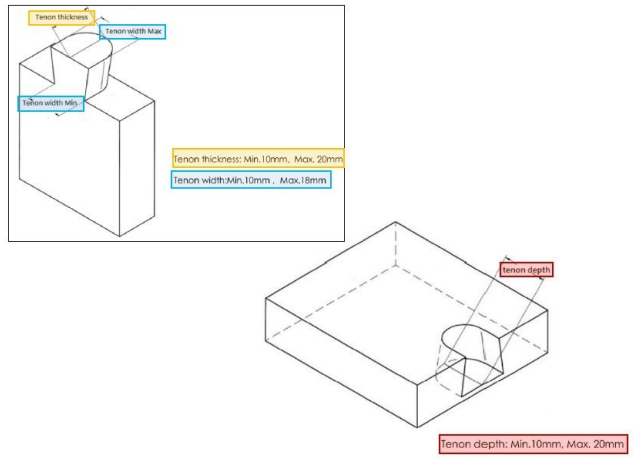


⚠ WARNING!

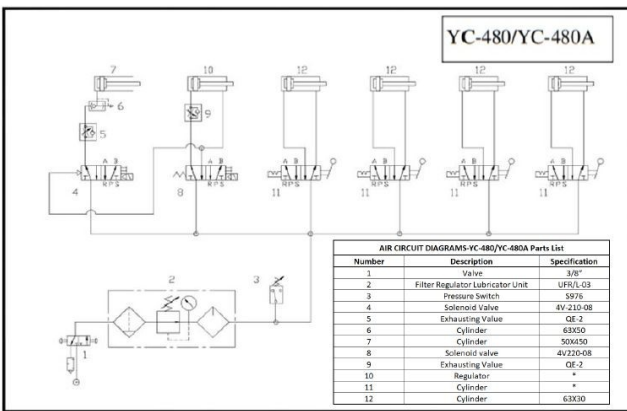
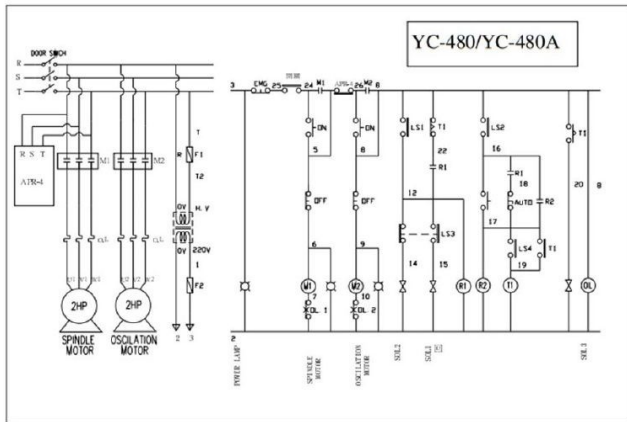
Do not operate the machine in case the pressure is lower than 6-8 kg/cm.

Diagrams & Drawings

Tenon:



Air Circuit Diagrams

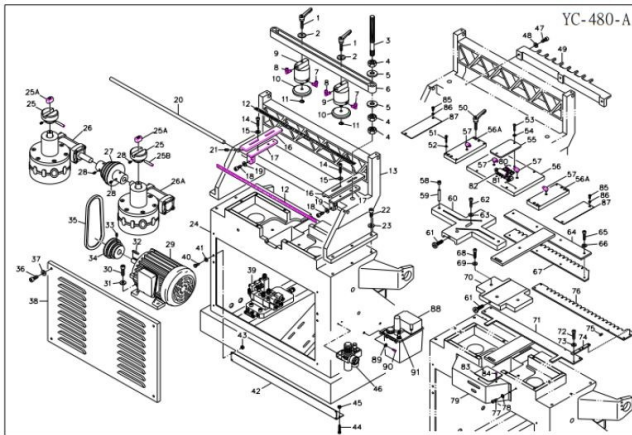


Parts List:

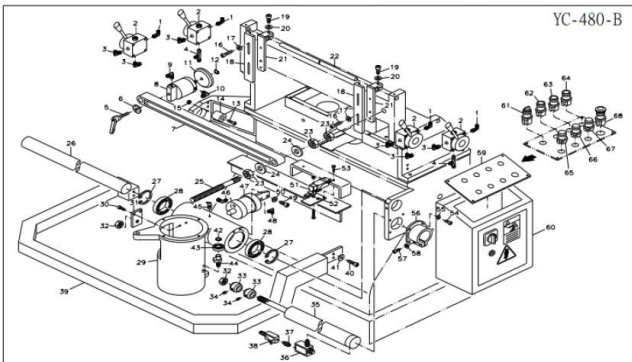
AIR CIRCUIT DIAGRAMS-YC-480/YC-480A Parts List		
Number	Description	Specification
1	Valve	3/8"
2	Filter Regulator Lubricator Unit	UFR/L-03
3	Pressure Switch	S976
4	Solenoid Valve	4V-210-08
5	Exhausting Valve	QE-2
6	Cylinder	63X50
7	Cylinder	50X450
8	Solenoid valve	4V220-08
9	Exhausting Valve	QE-2
10	Regulator	*
11	Cylinder	*
12	Cylinder	63X30

Machine Parts

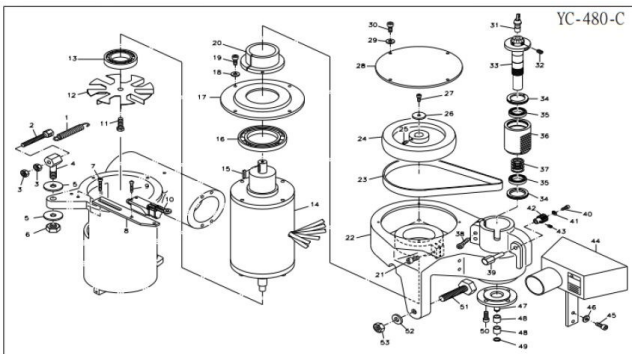
YC-480 A:



YC-480B:



YC-480C:



YC-480A-A:

Parts Lists

AIR CIRCUIT DIAGRAMS-YC-480/YC-480A Parts List		
Number	Description	Specification
1	Valve	3/8"
2	Filter Regulator Lubricator Unit	UFR/L-03
3	Pressure Switch	S976
4	Solenoid Valve	4V-210-08
5	Exhausting Value	QE-2
6	Cylinder	63X50
7	Cylinder	50X450
8	Solenoid valve	4V220-08
9	Exhausting Value	QE-2
10	Regulator	*
11	Cylinder	*
12	Cylinder	63X30

YC-480 A:

Parts List YC-480-A	
1	Handle M10x35mm
2	Washer/Gasket
3	Screw 20x40mm
4	20mm Hex Nut
5	20mm Swing Iron Board
6	Cylinder Base
7	Oil Pipe 90 Head 1/8x5mm
8	Oil Pipe 90 Head 1/8x6mm
9	Aluminum Hydraulic Cylinder
10	Rubber Iron Clamp
11	S-12 C Type Clasp/Snap Ring
12	Scale
13	Upper Base
14	6x20mm Hexagon Socket Tungsten Steel Screw
15	6mm Washer
16	Vertical Positioning Frame Pressure Plate/Board
17	Positioning Rod/Shaft
18	8x25mm Hexagon Socket Tungsten Steel Screw
19	8mm Washer
20	Smooth Iron/Shaft
21	5x5 Socket Headless Screw
22	10x40mm Hexagonal Head Screw
23	10mm Washer
24	Base

Parts List YC-480-A	
25	Slider Seat/Chunk Seat
25A	Slider/Chunk
25B	10x50mm Pin (Hollow Shoot)
26	Speed Reducing Motor
26A	Speed Reducing Motor
27	Pulley
28	8X10mm Socket Headless Screw
29	2HP 4P Motor
30	8x25mm Hexagonal Head Screw
31	8mm Washer
32	8mm Key
33	8x10mm Socket Headless Screw
34	Pulley
35	A-30 V-Belt
36	6x25mm Hexagonal Head Screw
37	6mm Washer
38	Cover
39	Solenoid Valve 4V210-08
40	8x25mm Hexagonal Head Screw
41	8mm Washer
42	Fixed Magazine
43	8mm Nut
44	12x70mm Hexagonal Head Screw
45	12mm Nut
46	3-Point Combination F. R. L.
47	6x35mm Hexagonal Head Screw
48	6mm Washer
49	Located Magazine
50	M10x60mm Handle
51	6x35mm Hexagonal Head Screw
52	6mm Washer

Parts List YC-480-A	
53	5x14mm Hexagonal Head Screw
54	5mm Washer
55	Drive Disk Cover/Iron Board
56	Disk Drive/Drive Board
56A	Disk Drive/Mold
57	Oil Pipe 90 Head 1/8TX4mm or Contactor
58	IRT 1012-1 Bearing
59	Axis or Shaft
60	Cross Track or Railway
61	Set Screw
62	12mm Hexagonal Head Screw
63	Track Screw Washer
64	Drive Frame "B" or T-Drive Board "B"
65	6x18mm Hexagonal Head Screw
66	6mm Washer
67	Upper Template or Mold Board
68	10x35mm Hexagonal Head Screw
69	10mm Washer
70	Sliding Seat or Sliding Base
71	Drive "A" or T-Drive "A"
72	6x14mm Hexagonal Head Screw
73	6mm Washer
74	Mild Plate or Mold Board
75	5mm Key
76	Lower Template or Down Mold Board
77	6x14mm Hexagonal Head Screw
78	6mm Washer
79	Rear or Back Cover
80	5x25mm Hexagonal Head Screw
81	5mm Washer

Parts List YC-480-A	
82	Oil Separator 4mm x 4 Hole with Adjustment
83	Acrylic Cover or Base (above)
84	4x10mm Hexagonal Head Screw
85	6x12mm Hexagonal Head Screw
86	6mm Washer
87	Cover
88	SMA602-30 Automatic Lubricator
89	6mm Washer
90	6x20mm Hexagonal Head Screw
91	6mm Non-Return Joint or Contactor

YC-480B:

Parts List YC-480-B	
1	Oil Pipe 90 Head 1/8x6mm
2	Manual Valve
3	Oil Pipe 90 Head 1/8x6mm
4	Duct Joint 1/8TX6mmNx6mmN
5	M10x35mm Handle
6	Washer/Gasket
7	Cylinder Base
8	Aluminum Hydraulic Cylinder
9	Oil Pipe 90 Head 1/8x6mm
10	Oil Pipe 90 Head 1/8x6mm
11	Rubber/Iron Clamp
12	S-12 C Type Clasp/Snap Ring
13	6x45mm Hexagonal Head Screw
14	Washer or Gasket
15	6mm Nut
16	6x20mm Hexagonal Head Screw
17	6mm Washer
18	Vertical Positioning Frame Pressure Plate or Vertical Located Board
19	8x25mm Hexagonal Head Screw
20	8mm Washer
21	Positioning Rod/Shaft "A"
22	Smooth Iron Bar
23	20mm Nut
24	20mm Washer

Parts List YC-480-B	
25	Screw
26	SUJ2 Axis/Shaft
27	R80 "C" Type Clasp/Snap Ring
28	LM50UU Bearing
29	Motor Mount/Fixed Base
30	8x25mm Hexagonal Head Screw
31	Fixed Plate/Board
32	16mm Nut
33	Sensor Head
34	8x10mm Hexagon Socket Headless Screw
35	Cylinder Tube
36	Quick Air Exhaust Valve
37	Copper Straight Head Male Teeth Screw 1/4Tx1/4T
38	1/4 Speed Adjusted Valve
39	Guardrail Round Tube/Enclosure
40	6x20mm Socket Headless Screw
41	6mm Washer
42	S17 "C" Type Clasp/Snap Ring
43	SKF 6203ZZ Bearing
44	Eccentric Shaft
45	Grease Nipple
46	Oil Pipe 90 Head/Contactor 1/8x6mm
47	Iron Hydraulic Cylinder
48	Oil Pipe 90 Head/Contactor 1/8x6mm
49	8x25mm Hexagonal Head Screw
50	8mm Washer
51	Scroll Wheel Micro Switch
52	Limit Switch Fixing Plate/Base

Parts List YC-480-B	
52A	5x12mm Hexagonal Head Screw
53	5x14mm Hexagonal Head Screw
54	6x20mm Hexagonal Head Screw
55	6mm Washer
56	Cover
57	6x25mm Hexagonal Head Screw
58	6mm Washer
59	Panel
60	Control Box
61	Manual/Auto Mode Selection Switch
62	Cutter Start Switch
63	Driving Plate Start Switch
64	Power
65	Single/Continuous Cycle Switch
66	Cutter Stop Switch
67	Driving Plate Stop Switch
68	Emergency Stop Switch
69	Sensor Fixed Base
70	Senor Head
71	6x6mm Hexagonal Head Screw
72	Copper Duct Joint Tee 6mmNX1/4TX6mmN

YC-480C:

Parts List YC-480-C	
25	5x10mm Hexagonal Head Screw
26	Gasket/Washer
27	6x20mm Hexagonal Head Screw
28	Cover
29	5mm Washer
30	5x14mm Hexagonal Head Screw
31	Tungsten Carbide Tip-TCT Drill Bits
32	8x10mm Socket Headless Screw
33	Axis/Shaft
33A	Grease Nipple
34	Nut
35	FAG 6005TB Bearing
36	Sleeve
36A	Ring
37	Washer
38	8x35mm Hexagonal Head Screw
39	Axis/Shaft
40	Axis/Shaft
41	5mm Washer
42	Gear Wheel
43	5x6mm Socket Headless Screw
44	Ventilator
45	6x18mm Hexagonal Head Screw
46	6mm Washer
47	Spindle Seat Push Rod/Shaft
48	IKO LRT121616 Bearing
49	S12 "C" Snap Ring
50	6x14mm Hexagonal Head Screw
51	Position Shaft
52	16mm Washer
53	16mm Nut
54	Nut
55	4mm Nut

Parts List YC-480-C	
1	Spring
2	Fixing Rod Screw
3	10mm Nut
4	Fixed Rod/Screw
5	14mm Washer
6	14mm Nut
7	6x20mm Hexagonal Head Screw
8	Gasket/Washer
9	5x14mm Hexagonal Head Screw
10	Scrool Wheel Micro Switch
11	4x20mm Phillips Head Screw
12	Motor Blade
13	NSK 6009DD Bearing
14	2HP 2P 6045 Motor
15	5mm Key
16	KOYO 16014 Bearing
17	Cover
18	6x20mm Hexagonal Head Screw
19	6mm Washer
20	Spindle Motor Bundle or Collet
21	8x45mm Hexagonal Head Screw
22	Shaft Base
23	30x748 Belt
24	Pulley

YC-480A-A:

1.	Handle M10x35mm	33	Socket headless screw 8x10mm
2.	Washer	34	Pulley
3.	screw 20x40mm	35	V-belt A-30
4.	Washer	36	Hexagonal head screw 6x25mm
5.	Swing iron board	37	Washer 6mm
6.	Cylinder base	38	cover
7.	contactor 1/8x6mm	39	Solenoid valve 4V210-08
8.	contactor 1/8x6mm	40	Hexagonal head screw 8x25mm
9.	Aluminum cylinder	41	Washer 8mm
10.	chunk	42	Fixed magazine
11.	S12"C" snap ring	43	Nut 8mm
12.	Scale	44	Hexagonal head screw 12x70mm
13.	Base (upper)	45	Nut 12mm
14.	Hexagonal head screw 6x20mm	46	F. R. L.
15.	Washer 6mm	47	Hexagonal head screw 6x35mm
16.	Board	48	Washer 6mm
17.	Shaft	49	Located magazine
18.	Shaft	50	Handle M10x60mm
19.	Hexagonal head screw 6x25mm	51	Hexagonal head screw 6x35mm
20.	shaft	52	Washer 6mm
21.	Socket headless screw 5x5mm	53	Hexagonal head screw 5x14mm
22.	Hexagonal head screw 10x40mm	54	Washer 5mm
23.	Washer 10mm	55	Iron board
24.	base	56	Drive board
25.	Chunk base	56A	mold
25A	chunk	57	contactor 1/8TX4mm
25B	10x50mm pin	58	IRT 1012-1 bearing
26.	Speed reduced motor	59	Shaft
26A	Speed reduced motor	60	railway
27.	Pulley	61	screw
28.	Socket headless screw 8x10mm	62	Hexagonal head screw 12mm
29.	ZHP 4P motor	63	Screw
30.	Hexagonal head screw 8x25mm	64	T drive Board B
31.	Washer 8mm	65	Hexagonal head screw 6x18mm
32.	Key 8mm	66	Washer 6mm

1.	Contactora 1/8x6mm	36.	Quick air exhaust valve
2.	Value	37.	Screw 1/4Tx1/4T
3.	Contactora 1/4x6mm	38.	1/4 speed adjusted value
4.	Contactora 6mmNx1/4X6mmN	39.	enclosure
5.	Handle M10x35mm	40.	Socket headless screw 6x20mm
6.	Washer	41.	Washer 6mm
7.	Cylinder base	42.	S17"C" snap ring
8.	Aluminum cylinder	43.	SKF 6203ZZ bearing
9.	Contactora 1/8x6mm	44.	shaft
10.	Contactora 1/8x6mm	45.	Grease nipple
11.	Aluminum chunk	46.	Contactora 1/8x6mm
12.	S12"C" snap ring	47.	Iron cylinder
13.	Hexagonal head screw 6x45mm	48.	Contactora 1/8x6mm
14.	Washer	49.	Hexagonal head screw 8x25mm
15.	Nut 6mm	50.	Washer 8mm
16.	Hexagonal head screw 6x20mm	51.	Micro-switch
17.	Washer 6mm	52.	Limited switch fix base
18.	Vertical located board	52A	5x12mm Hexagonal head screw
19.	Hexagonal head screw 8x25mm	53.	Hexagonal head screw 5x14mm
20.	Washer 8mm	54.	Hexagonal head screw 6x20mm
21.	Shaft A	55.	Washer 6mm
22.	Iron bar	56.	cover
23.	Nut 20mm	57.	Hexagonal head screw 6x25mm
24.	Washer 20mm	58.	Washer 6mm
25.	Screw	59.	Panel
26.	SUJ2 shaft	60.	Control box
27.	R80"C" snap ring	61.	Manual/Auto mode selection switch
28.	LM50UU bearing	62.	Cutter start switch
29.	Motor fix base	63.	Driving plate start switch
30.	Hexagonal head screw 8x25mm	64.	Power
31.	Fixed board	65.	Single/Continuous cycle switch
32.	Nut 16mm	66.	Cutter stop switch
33.	sensor	67.	Driving plate stop switch
34.	Socket headless screw 8x10mm	68.	Emg. stop switch
35.	Cylinder tube	69.	Sensor fixed base

70	sensor
71	Socket headless screw 6x6mm

YC-480A-C:

1	Spring	35.	FAG 6005TB bearing
2	Screw	36.	Sleeve
3	Nut 10mm	36A	Ring
4	Screw	37.	Washer
5	Washer 14mm	38.	Hexagonal head screw 8x35mm
6	Nut 14mm	39.	Shaft
7	Hexagonal head screw 6x20mm	40.	Hexagonal head screw 5x14mm
8	Washer	41.	Washer 5mm
9	Hexagonal head screw 5x14mm	42.	Gear wheel
10	Micro-switch	43.	Socket headless screw 5x6mm
11	4x20mm cross screw	44.	Ventilator
12	Motor blade	45.	Hexagonal head screw 6x18mm
13	NSK 6009DD bearing	46.	Washer 6mm
14	2HP 2P 6045 motor	47.	Shaft
15	Key 5mm	48.	IKO LRT121616 bearing
16	KOYO 16014 bearing	49.	S12"C" snap ring
17	Cover	50.	Hexagonal head screw 6x14mm
18	Hexagonal head screw 6x20mm	51.	Position shaft
19	Washer 6mm	52.	Washer 16mm
20	Collect	53.	Nut 16mm
21	Hexagonal head screw 8x45mm	54.	Nut
22	Shaft base	55.	Nut 4mm
23	30x748 belt		
24	Pulley		
25	Socket headless screw 5x10mm		
26	Washer		
27	Hexagonal head screw 6x20mm		
28	Cover		
29	Washer 5mm		
30	Hexagonal head screw 5x14mm		
31	TCT bits		
32	Socket headless screw 8x10mm		
33	Shaft		
33A	Grease nipple		
34	Nut		

Warranty

This continuous dovetailer carries one year of warranty from the date of purchase. During the warranty period, if the machine operation is failed due to a defect material or workmanship, your local distributor the machine manufacturer will repair or replace the defected parts. However the defected part should be sent back immediately to your local distributor or the machine manufacturer for inspection. This warranty does not cover any damage caused by misuse abnormal operation or normal material wear.

Dealer Machinery Warranty

- New woodworking machines sold by Laguna Tools carry a two-year warranty effective from the date of dealer invoice to customer/end-user. Machines sold through dealers must be registered with Laguna Tools within 30 days of purchase to be covered by this warranty. Laguna Tools guarantees all new machine sold to be free of manufacturers' defective workmanship, parts, and materials. We will repair or replace, without charge, any parts determined by Laguna Tools, Inc. to be a manufacturer's defect. We require that the defective item/part be returned to Laguna Tools with the complaint. The end-user must request an RMA (return material authorization) number from Customer Service and include the (RMA) number with all returned parts/components requesting warranty coverage.* Any machines returned to Laguna Tools must be returned with packaging in the same way it was received. If a part or blade is being returned it must have adequate packaging to ensure no damage is received during shipping. In the event the item/part is determined to be damaged due to lack of maintenance, cleaning or misuse/abuse, the customer will be responsible for the cost to replace the item/part, plus all related shipping charges. This limited warranty does not apply to natural disasters, acts of terrorism, normal wear and tear, product failure due to lack of maintenance or cleaning, damage caused by accident, neglect, lack of or inadequate dust collection, misuse/abuse or damage caused where repair or alterations have been made or attempted by others.

Modifications Policy:

Laguna Tools, Inc. is not responsible for additional tools or modifications sold or performed (other than from/by Laguna Tools, Inc.) on any Laguna Tools, Inc. woodworking machine. Warranty maybe voided upon the addition of such described tools and/or modifications, determined on a case-by-case basis. Normal user alignment, adjustment, tuning, and machine settings are not covered by this warranty. It is the responsibility of the user to understand basic woodworking machinery settings and procedures and to properly maintain the equipment in accordance with the standards provided by the manufacturer. Parts, under warranty, are shipped at Laguna Tools, Inc.'s cost either by common carrier, FEDEX ground service or a similar method. Technical support to install replacement parts is primarily provided by phone, fax, e-mail, or Laguna Tools Customer Support Website. The labor required to install replacement parts is the responsibility of the user. Laguna Tools is not responsible for damage or loss caused by a freight company or other circumstances not in our control. All claims for loss or damaged goods must be notified to Laguna Tools within twenty-four hours of delivery. Please contact our Customer Service Department for more information. Only new machines sold to the original owner are covered by this warranty.

For warranty repair information, call 1-800-332-4094. No Modifications Allowed or Sold.

WARRANTY & REGISTRATION

THANK YOU!

Welcome to the Laguna Tools® group of discriminating woodworkers. We understand that you have a choice of where to purchase your machines and appreciate the confidence you have in the Laguna Tools® brand. Through hands-on experience, Laguna Tools® is constantly working hard to make innovative, precision products. Products that inspire you to create works of art, are a joy to operate, and encourage your best work.

Laguna Tools®
Imagination, Innovation, and Invention at Work

WARRANTY & REGISTRATION

Every product sold is warranted to be free of manufacturer's defective workmanship, parts, and materials. For any questions about this product, the intended use or what it was designed for, customer service, or replacement parts, please contact our customer service department.

Laguna Tools® Customer Service
2072 Alton Parkway, Irvine, California 92606, USA
1-800-332-4449
customerservice@lagunatools.com
www.lagunatools.com/why/customer-service/
SAM 10 9PM PST, Monday through Friday

For warranty claims or to report damage upon receiving – please reach out to our warranty department:

Laguna Tools® Warranty Service
2072 Alton Parkway, Irvine, California 92606, USA
1-800-474-1200
customerservice@lagunatools.com
www.lagunatools.com/tools/claims/warranty
SAM 10 5PM PST, Monday through Friday

REGISTRATION

To prevent voiding this warranty, all products sold must be registered within thirty (30) days of receiving the product. Registering the product will enable the original purchaser to receive notifications about important product changes, receive customer service, and be able to file a warranty claim against defective workmanship, parts, or materials.

WHO IS COVERED

The applicable warranty covers only the initial purchaser of the product from the date of receiving the product. To file such claims, the original purchaser must present the original receipt as proof of purchase.

WHAT IS COVERED

The warranty covers any defects in the workmanship of all parts and materials that make up the machine unless otherwise specified. Any part, determined by Laguna Tools®, to have a defect will be repaired or replaced (and shipped), without charge. The defective item/part must be returned to Laguna Tools® with the complaint and proof of purchase in the original packaging that it was received in. In the event the item/part is determined to be not covered by this warranty, the customer will be responsible for the cost to replace the item/part and all related shipping charges.

REGISTER HERE!



<http://www.lagunatools.com/why/customer-service/why/register-warranty/>

WARRANTY LIMITATIONS

This limited warranty does not apply to natural disasters, acts of terrorism, normal wear and tear, product failure due to lack of maintenance or cleaning, damage caused by accident, neglect, or lack of adequate dust collection. The warranty may be voided against proof of misuse/abuse, damage caused where repair or alterations have been made or attempted by others, using the product for purposes other than those described as intended use (unless with consent by Laguna Tools®), modification to the product, or use with an accessory that was not designed for the product. It is the responsibility of the user to understand basic woodworking machinery settings and procedures and to properly maintain the equipment in accordance with the standards provided in this manual.

LENGTH OF WARRANTY

All new machines and optional accessories sold through an authorized dealer carry a two-year warranty effective the date of receiving the product. Machines sold for either commercial or industrial use have a one-year warranty. Wearable parts like throat plates, bandsaw guides, etc., have a ninety-day warranty.

Table A-1 Warranty Lengths

2 Year – New Machines Sold Through an Authorized Dealer
2 Year – Accessories Sold as Machine Options (excluding blades)
1 Year – Machines Sold for Commercial or Industrial Use
1 Year – Blades and Accessories outside of Machine Options
90 Days – Wearable Parts

Aside from being free of defects upon receiving, consumable parts, like cutters and abrasives, are not covered by this warranty unless otherwise stated by Laguna Tools®. These parts are designed to be used at the expense of the operator and are available for replacement or inventory purchase. The determination of a consumable part will be made on a case-by-case basis by Laguna Tools®.

SHIPPING DAMAGE

Laguna Tools® is not responsible for damage or loss caused by a freight company or other circumstances not in the direct control of Laguna Tools®. All shipping-related claims for loss or damage goods must be made to Laguna Tools® within twenty-four hours of delivery.

HOW TO RECEIVE SUPPORT

To file a warranty claim please contact the warranty department at 1-800-474-1200. To receive customer service or technical support please contact the customer service department at 1-800-332-4449. Parts, under warranty, are shipped at the expense of Laguna Tools® either by common carrier, FedEx ground services or similar method. Technical support to install replacement parts is primarily provided by phone, fax, email, or the Laguna Tools Customer Support Website.



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CNC Warranty

CNC Limited Warranty

New CNC machines sold by Laguna Tools carry a one-year warranty effective from the date of shipping. Laguna Tools guarantees all new machine sold to be free of manufacturers' defective workmanship, parts, and materials. We will repair or replace without charge, any parts determined by Laguna Tools, Inc. to be a manufacturer's defect. We require that the defective item/part be determined to be damaged due to lack of maintenance, cleaning or misuse/abuse, the customer will be responsible for the cost to replace the item/part, plus all related shipping charges. This limited warranty does not apply to natural disasters, acts of terrorism, normal wear and tear, product failure due to lack of maintenance or cleaning, damage caused by accident, neglect, lack of or inadequate dust collection, misuse/abuse or damage caused where repair or alterations have been made or attempted by others. Laguna Tools, Inc. is not responsible for additional tools or modifications sold or performed (other than from/by Laguna Tools, Inc.) on any Laguna Tools, Inc. woodworking machine. Warranty maybe voided upon the addition of such described tools and/or modifications, determined on a case-by-case basis. Software purchased through Laguna Tools, Inc., is not covered under this warranty and all technical support must be managed through the software provider. Normal user alignment, adjustment, tuning, and machine settings are not covered by this warranty. It is the responsibility of the user to understand basic woodworking machinery settings and procedures and to properly maintain the equipment in accordance with the standards provided by the manufacturer. Parts under warranty are shipped at Laguna Tools, Inc.'s cost either by common carrier, FEDEX ground service or a similar method. Technical support to install replacement parts is primarily provided by phone, fax, e-mail, or Laguna Tools Customer Support Website. The labor required to install replacement parts is the responsibility of the user. Laguna Tools is not responsible for damage or loss caused by a freight company or other circumstances not in our control. All claims for loss or damaged goods must be notified to Laguna Tools within twenty-four hours of delivery.

****Please contact our Customer Service Department for more information. Only NEW machines sold to the original owner are covered by this warranty. For warranty repair information, call 1-800-332-4094. Copyright 2013 Laguna Tools, Inc. ****Warning – no portion of these materials may be reproduced without written approval from Laguna Tools, Inc.**

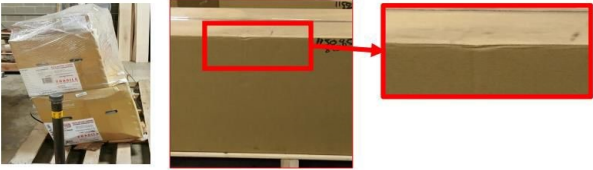
Damage Notification Sheet

- 1.) The Machines are thoroughly tested before leaving any of our Laguna Tools Facilities, but that does not mean the Machines would not experience any damage in transit.
- 2.) Before one Signs the Bill of Lading (See Example Below) when the Trucking Company drops off the Machine, **visually inspect the entire crate and check for any damage.**

[Click to select date] **BILL OF LADING – SHORT FORM – NOT NEGOTIABLE** Page 1 of 1

SHIP FROM Laguna Tools 744 Rutledge Way Suite #200 Grand Prairie, TX 75050 SID No.:		Bill of Lading Number: BAR CODE SPACE	
SHIP TO (Name) (Street Address) (City, ST, ZIP Code) CID No.:		Carrier Name: Trailer number: Serial number(s):	
THIRD PARTY FREIGHT CHARGE \$ BILL TO (Name) (Street Address) (City, ST, ZIP Code)		SCAC: Pro Number: BAR CODE SPACE	
Special Instructions		Freight Charge Terms (invoice charges are prepaid unless marked otherwise) Prepaid <input type="checkbox"/> Collect <input type="checkbox"/> 3rd Party <input type="checkbox"/> <input type="checkbox"/> Master bill of lading with attached underlying bills of lading.	
CUSTOMER ORDER INFORMATION			
Customer Order No.	# of Packages	Weight	Additional Shipper Information
			Pallet/Sip (force one) Y N Y N Y N Y N
Grand Total			
CARRIER INFORMATION			
Handling Unit	Package	Weight	LTL Only
City Type	Qty Type	Weight HM (0)	Commodity Description <small>Commodity requires special or additional care or attention in handling or stowing must be so marked and packaged as to ensure safe transportation with ordinary care. Item Number 200 or NMFC use 300</small>
			NMFC No. Cites
When this bill is presented on value, shipper and carrier to state specifically in writing the agreed or declared value of the property as shown. If the agreed or declared value of this property is specifically stated by the shipper, it is irrevocable.			
COO Amount: \$		Fee terms: Collect <input type="checkbox"/> Prepaid <input type="checkbox"/> Customer check acceptable <input type="checkbox"/>	
Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 USC § 14700(i)(1)(A) and (B).			
Revised, not subject to individual bills of lading or manifests that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise the carrier, consignee, and other parties remain liable for the cargo and are not liable for the shipper, its agent, and all applicable state and federal regulations.		The carrier shall not make delivery of this shipment without payment of charges and all other lawful fees. Shipper Signature:	
Shipper Signature/Date <small>(After a copy of this Bill of Lading is made, the shipper must sign and date it in ink or other permanent marking and retain it for the duration of the DOT.</small>	Trailer Loaded: <input type="checkbox"/> By shipper <input type="checkbox"/> By driver	Freight Counted: <input type="checkbox"/> By shipper <input type="checkbox"/> By driver/talets said to contain <input type="checkbox"/> By driver/boxes	Carrier Signature/Pickup Date <small>(Carrier will acknowledge receipt of packages and inspect them. Carrier certifies emergency response information was made available and is correct for the DOT emergency response procedure or a previous documentation into vehicle. Heavy equipment shall be marked in accordance with the rules.</small>

- 3.) If one finds any shipping damage to the Crate (See Example Pictures Below.), report the damage to the Trucking Company, Note the Damage on the Bill of Lading & attach back on to the Crate. If possible, take Photos of the Damage and send to Laguna Tools Customer Service.



- 4.) If YOU OPENED THE CRATE and found shipping damage to Machine, **Note that on the Bill of Lading as well with any photos.**

- 5.) **NOTIFY LAGUNA TOOLS WITHIN 24 HOURS AFTER RECEIVING CRATE WITH SHIPPING or any other type of DAMAGE.** We ask customers to notify us within 24 hours of any damage sustained to the packaging and or products. Customers can contact us at customerservice@lagunatools.com or call 800-234-1976.

LAGUNA *SuperMax* BY LAGUNA

LAGUNA AMERICAN HEADQUARTERS

Texas: 744 Refuge Way Suite 200, Grand Prairie, Texas 75050, U.S.A. Phone: +1-800-332-4094

Huntington Beach: 7291 Heil Ave Huntington Beach, CA 92647, U.S.A. Phone: +1-949-474-1200

South Carolina: 825 Bistline Dr. Ste 101, West Columbia, SC 29172, U.S.A. Phone: +1-800-234-1976

Minnesota: 5250 West 74th St, Edina, MN 55439, U.S.A Phone: +1-949-474-1200

LAGUNA EUROPE

Walker Rd, Bardonia Hill, Coalville LE67 1TU, United Kingdom. Phone: +44-1530-516921