

LAGUNA TOOLS

LAGUNA

Smartshop AL- Smartshop Autoloader-

Owner's Manual-

Features:

- 12HP HSD Spindle.
- HSD 5×5 L Shape Drill Block.
- 8 Position Rotary Tool Changer.
- 850w Yaskawa Servos.



.....
Explore The SmartShop® Auto Loader

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Swift Series CNC Machines © 2021 Laguna Tools
6/01/2021

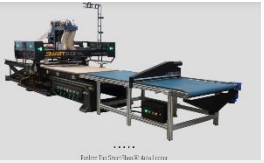


Table of Contents-

Safety Information- Pg.3-6.

Machine Briefing- Pg. 7.

Parts & Description- Pg. 8-23.

Main Parts & Areas- Pg. 24-25.

Installation of Machine- Pg. 26-33.

Installation of Electrical Cabinet- Pg. 34.

Vacuum System- Pg. 35-37.

Assembly Vacuum, Pump & Ventilation- Pg. 38-42.

Test Run- Pg.43-44.

Software/Control Operation Instructions- Pg. 44-46.

Process Speed Adjustment- Pg. 47-49.

Machine Operation Instructions- Pg. 50-62.

Delivery Protocols, Warranties, RMA Procedures- Pg. 63-70.


Safety Information-


Read the following instructions thoroughly and carefully BEFORE operating-

- 1.) All the components of the machine have been set up and adjusted completely by the manufacture. Any other needed adjustments should only be done by the well-trained operator.
- 2.) To avoid electric shock by the high voltage, DO NOT leave the door of the electrical cabinet open during operation.
- 3.) Carefully read through all the safety instructions, warnings as well as signs fixed to the machine before operating.
- 4.) The machine must only be operated in dry and clean environment and be free from moisture and flammable objects.
- 5.) The machine must be properly grounded. Level it if the floor is uneven.
- 6.) Keep the machine and the electrical cabinet clear of unnecessary objects and keep all parts clean.
- 7.) Keep the machine, the electrical cabinet, and cables away from excessive heat, flammable substance, and sharp objects. Do not attempt to exceed the working limits of the machine.
- 8.) Make sure that all parts of body for the operator must be kept away from the machine during operation.
- 9.) Always disconnect the machine power during adjustment operations and maintenance or when the machine is not in use.
- 10.) Do not move or adjust the machine once the power is on.
- 11.) Exercise care with machine controls and around keypad to avoid unintentional starting.
- 12.) Maintain equipment with care. Keep cutting tools clean and sharp. Lubricate and change accessories when necessary. Cables and cords should be inspected regularly. Keep controls clean and dry.

Safety Information (Cont'd.)-

Safety Signs-

 Danger: Improper or unsafe operation will result in personal injury and/or damage to the equipment.

 Prohibited: prohibited under any circumstances.

 Must-Dos

 High voltage power supply: Caution!

Caution-

Read thoroughly before operating. Do not operate machine if the operator is unfamiliar with the safety instructions and safety signs. Users are required to keep a copy of this user manual for future reference. Failure to comply with the safety instructions may lead to personal injury and/or damage to the equipment.

Safety Information (Cont'd.)-

The Operator Must:

Be familiar with the equipment and its installation, adjusting and operation, and be able to react in emergencies; Be properly trained, familiar with the operation, repair, and maintenance of the machine; **The operator must also:**

- 1.) Perform daily inspection of the safety device.
- 2.) Stay alert all the time when operating the machine.
- 3.) Always keep the table clear of debris or other unnecessary objects.
- 4.) Operate only after making sure the machine is clear of unnecessary objects.
- 5.) Wear safety helmet and goggles but gloves are prohibited.
- 6.) Keep the machine and the electrical cabinet free from unnecessary objects and keep all parts clean.
- 7.) Do not attempt to use the machine before proper inspection and preparation.
- 8.) Make sure to know where the emergency stop switch is located.
- 9.) Keep the machine from excessive moisture or use a filter to ensure this.

Safety Information (Cont'd.)-

Safety Warnings:

- 1.) Do not operate the machine with electrical cabinet door open—high voltage supply inside.
- 2.) The machine must have proper electrical grounding. The power supply must be connected to permanently fixed electrical wire.
- 3.) The machine is supplied ready-to-go. Adjustments and modifications are to be performed only by qualified personnel.
- 4.) Keep children and non-operators away from the machine.
- 5.) Carefully read through all the safety instructions and warnings. The safety signs should be attached on places that are easy to spot.
- 6.) Operators must be familiar with the installation, operation, and maintenance of the machine. Only proper operation can guarantee the safe and smooth running of the machine.

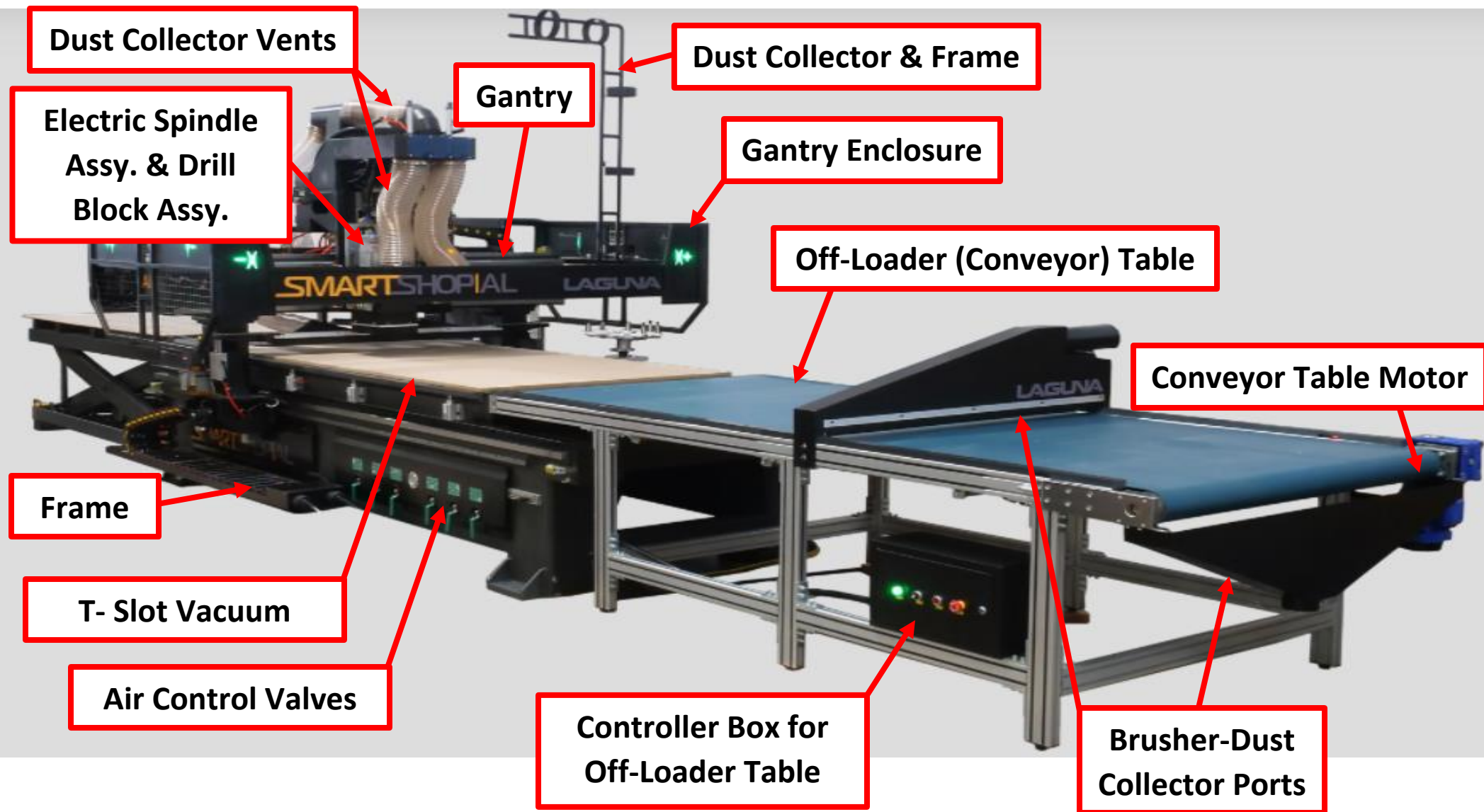
Machine Briefing-

Laguna Tools: The Smartshop Autoloader (Smartshop “AL”)-

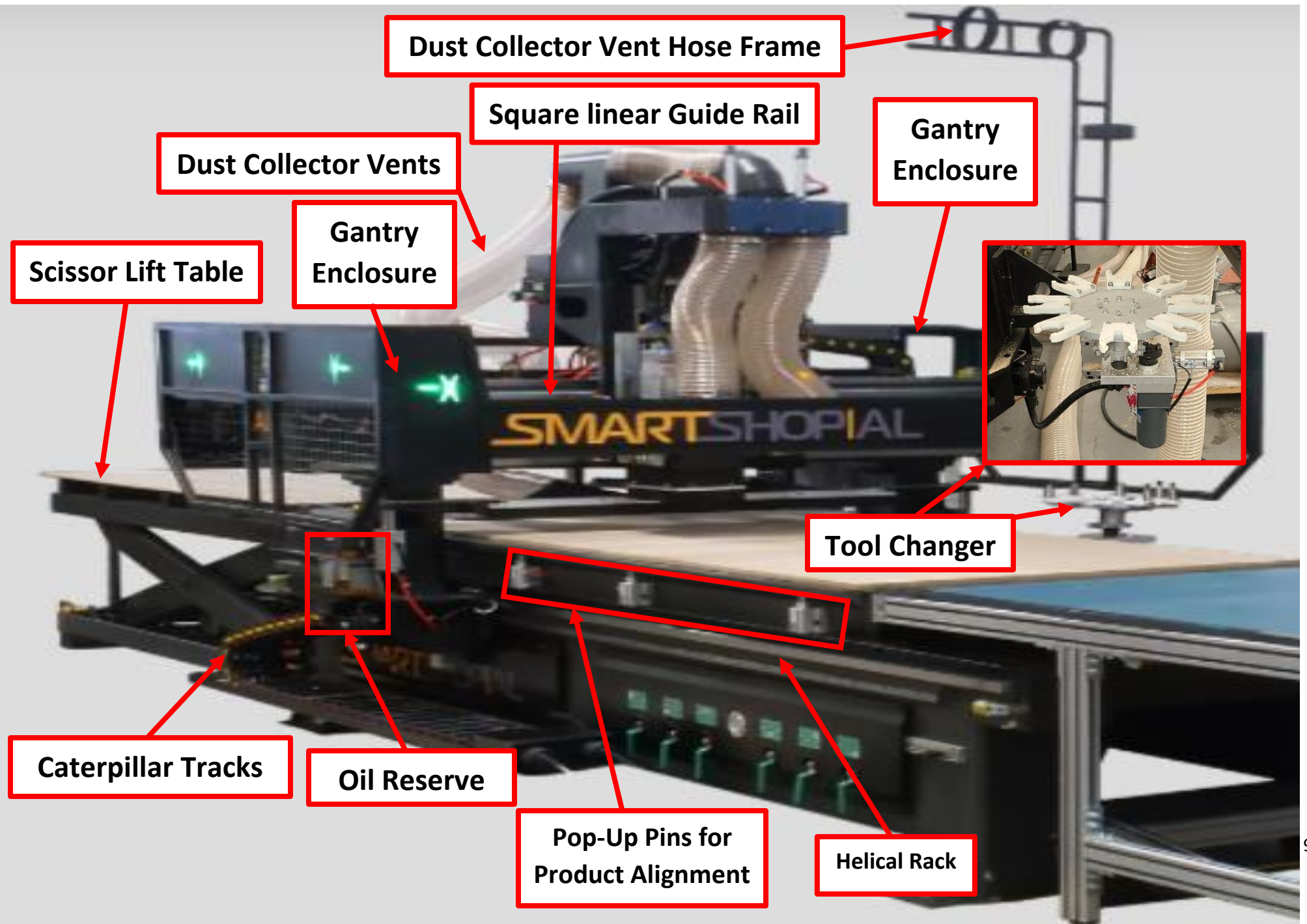
The All-New Automatic Loading and Unloading machine complete with clean sweep technology is a game changer for those shops looking to produce the maximum number of orders with quick and reliable delivery times. Primarily designed for the panel processing sector, the Smartshop “AL” also excels at machining plastic and non-ferrous metals.

This model is an extremely cost-effective work center with 6 or 8-slot linear tool changer and the tool changing time is only 16 seconds. With Italian high power ATC8 spindle, Japanese servo drive system and gear reducers, French Schneider electronic components and other imported parts, this machine has stable and reliable performance. It is highly suitable for various processing procedures with versatile functions: routing, drilling, cutting, side milling, chamfering, etc. The T-slot vacuum table can either hold the materials of different sizes with strong suction power, or clamp materials of irregular shapes with fixtures.

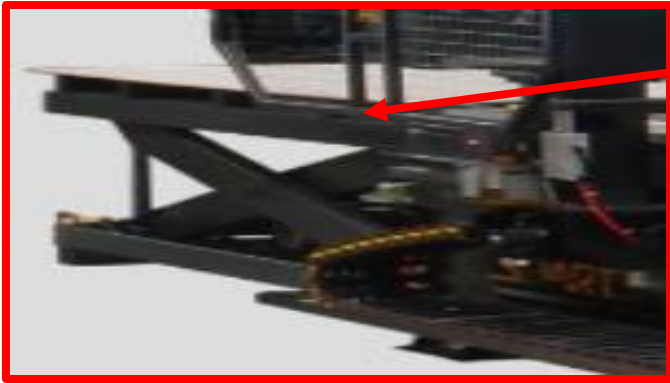
Parts & Description of the Smartshop Autoloader (Smartshop "AL")-



Parts & Description of the Smartshop Autoloader (Smartshop "AL") (Cont'd.)-



Parts & Description of the Smartshop Autoloader (Smartshop "AL") (Cont'd.)-



Scissor Lift Table



Product Alignment Stops

**Control Box
Scissor Lift Table**

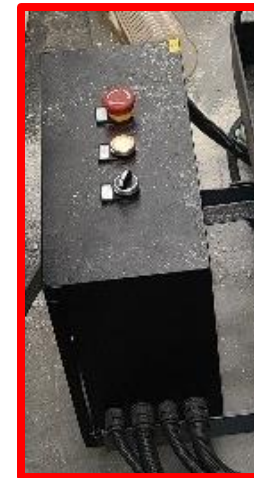


**Emergency
Stop Button**

Product Alignment Sensor

**Up/Down
Control
Peddles for
Scissor Lift**

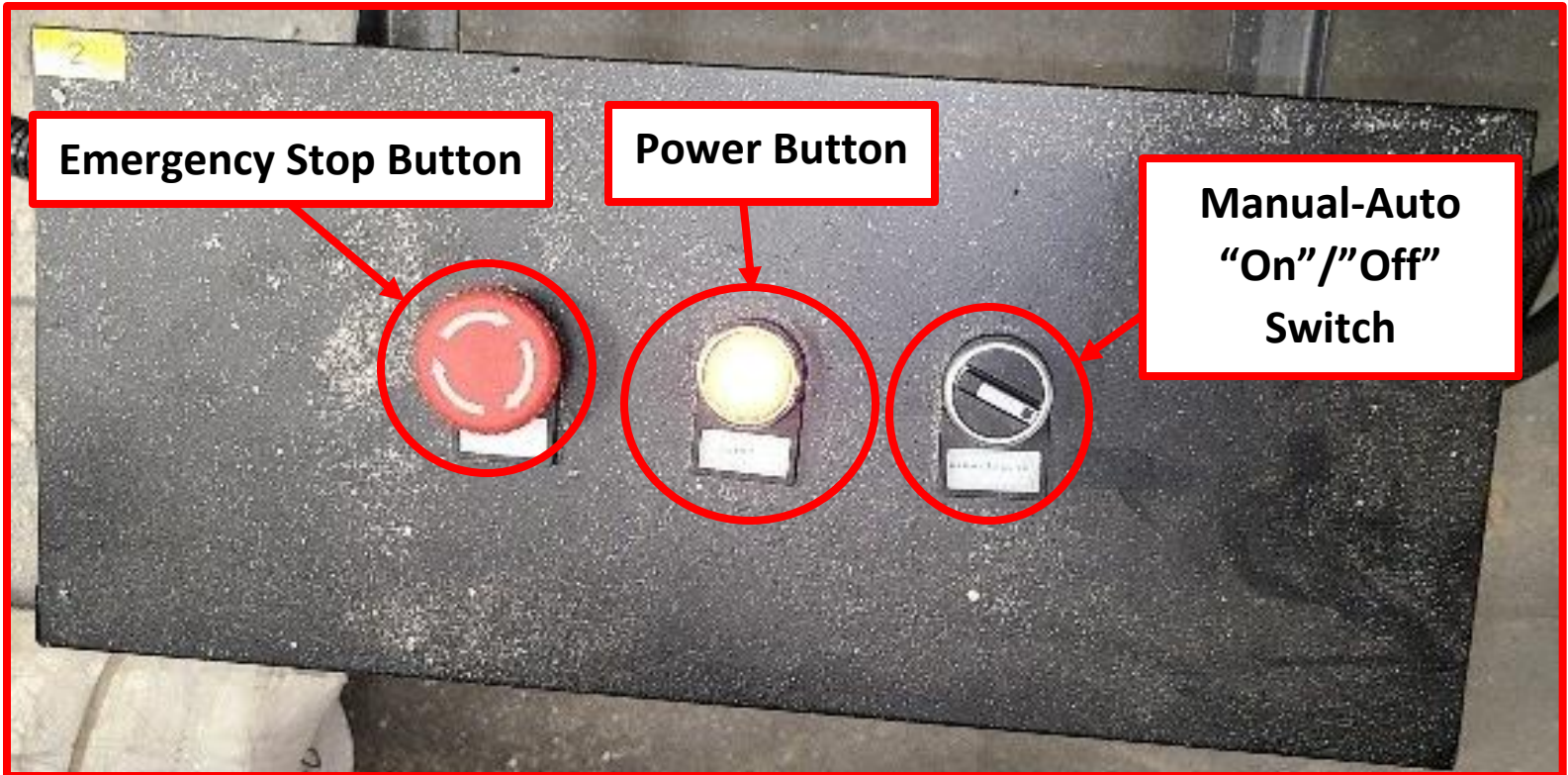
**Control Box
Scissor Lift Table**



**Control Box
Scissor Lift Table**

Parts & Description of the Smartshop Autoloader (Smartshop "AL") (Cont'd.)-

**Control
Box Scissor
Lift Table**

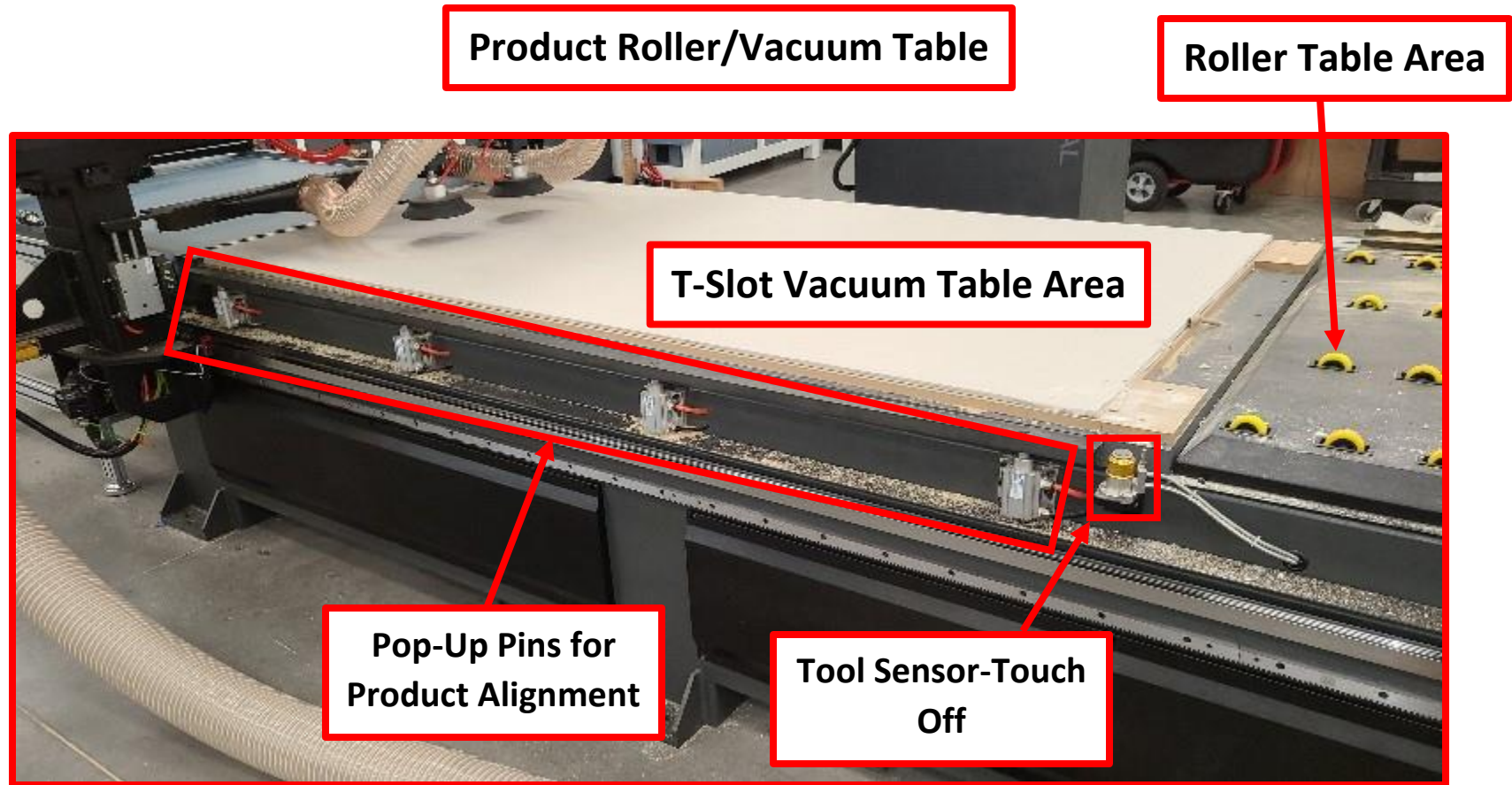


Emergency Stop Button

Power Button

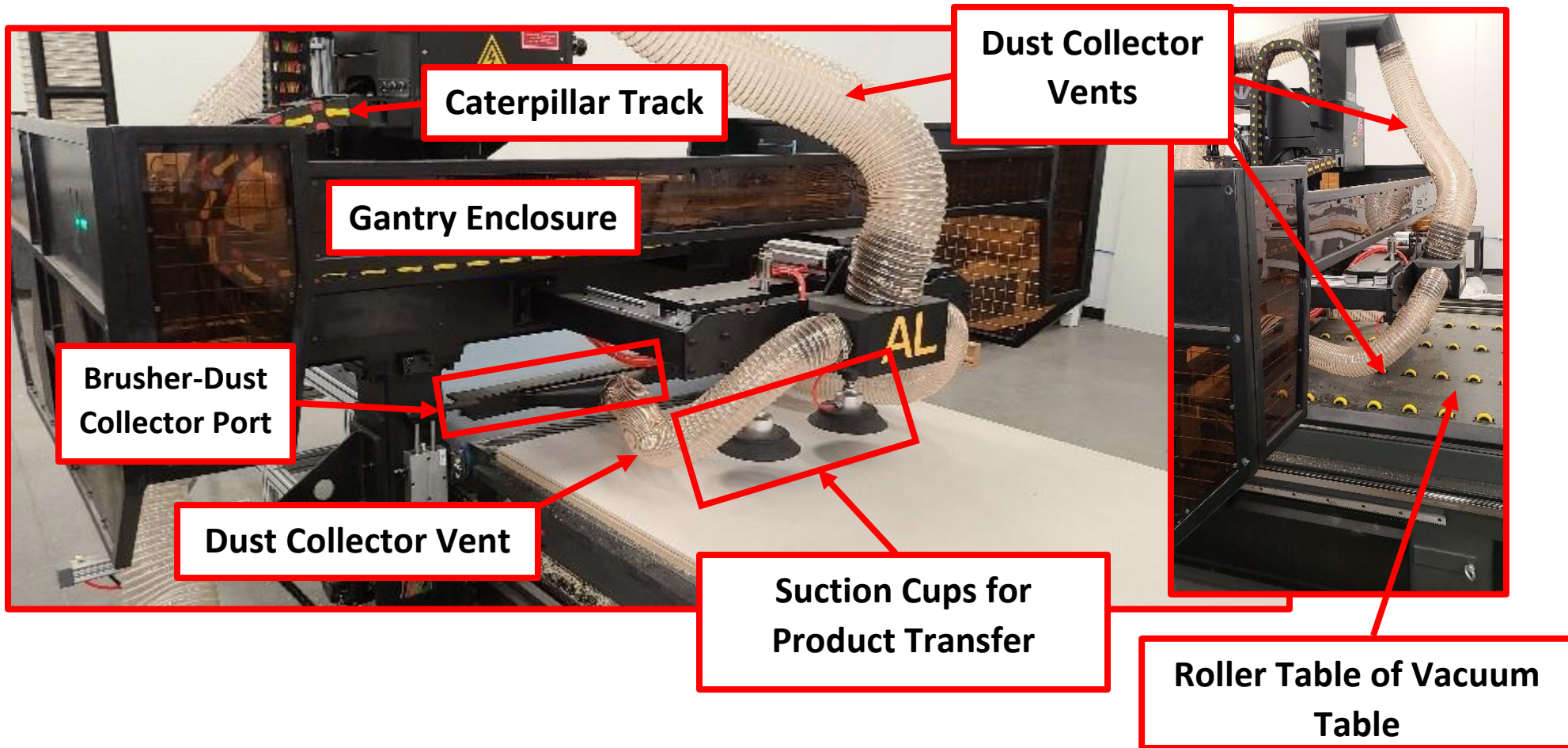
**Manual-Auto
"On"/"Off"
Switch**

Parts & Description of the Smartshop Autoloader (Smartshop "AL") (Cont'd.)-

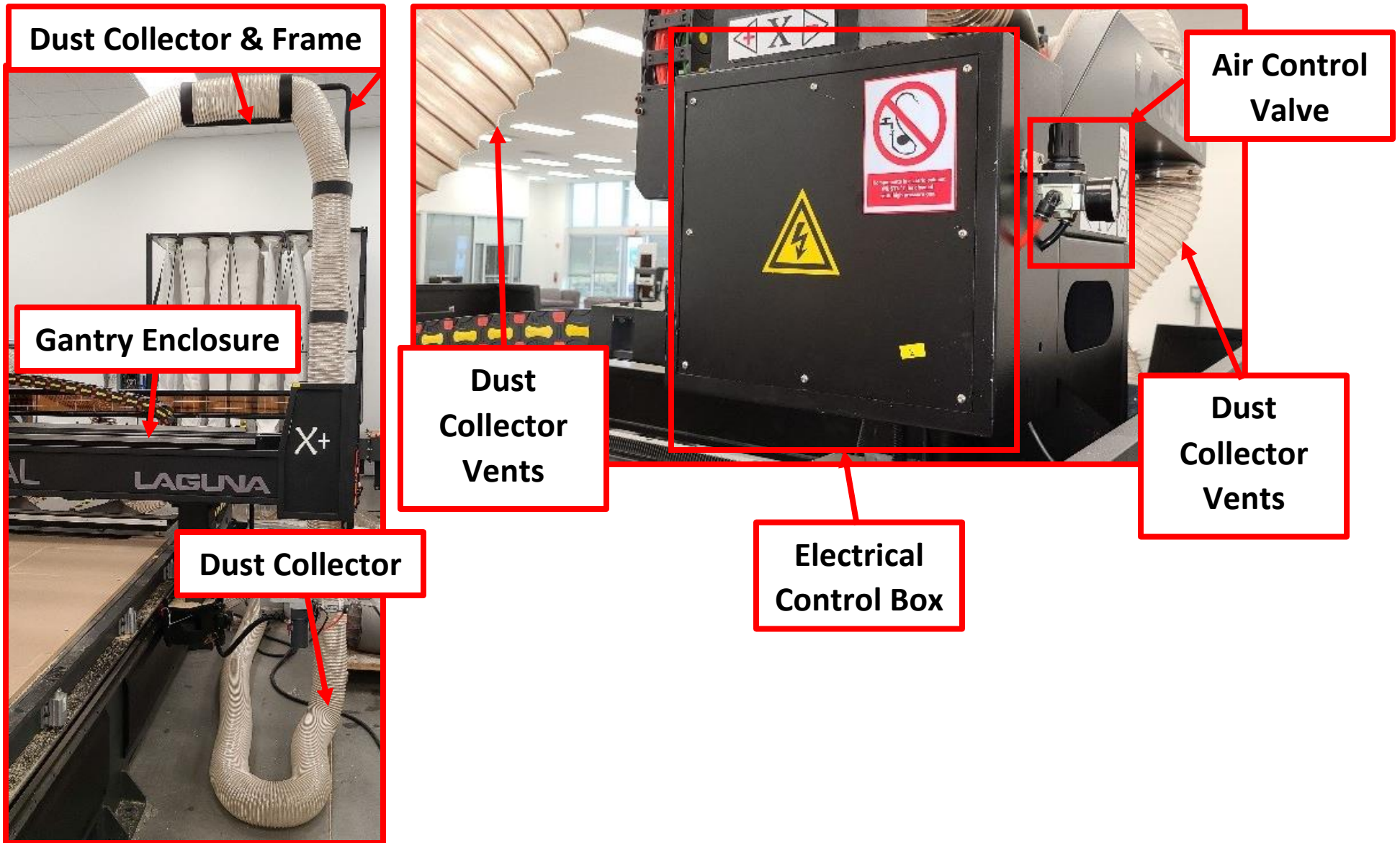


Brusher-Dust Collector Port

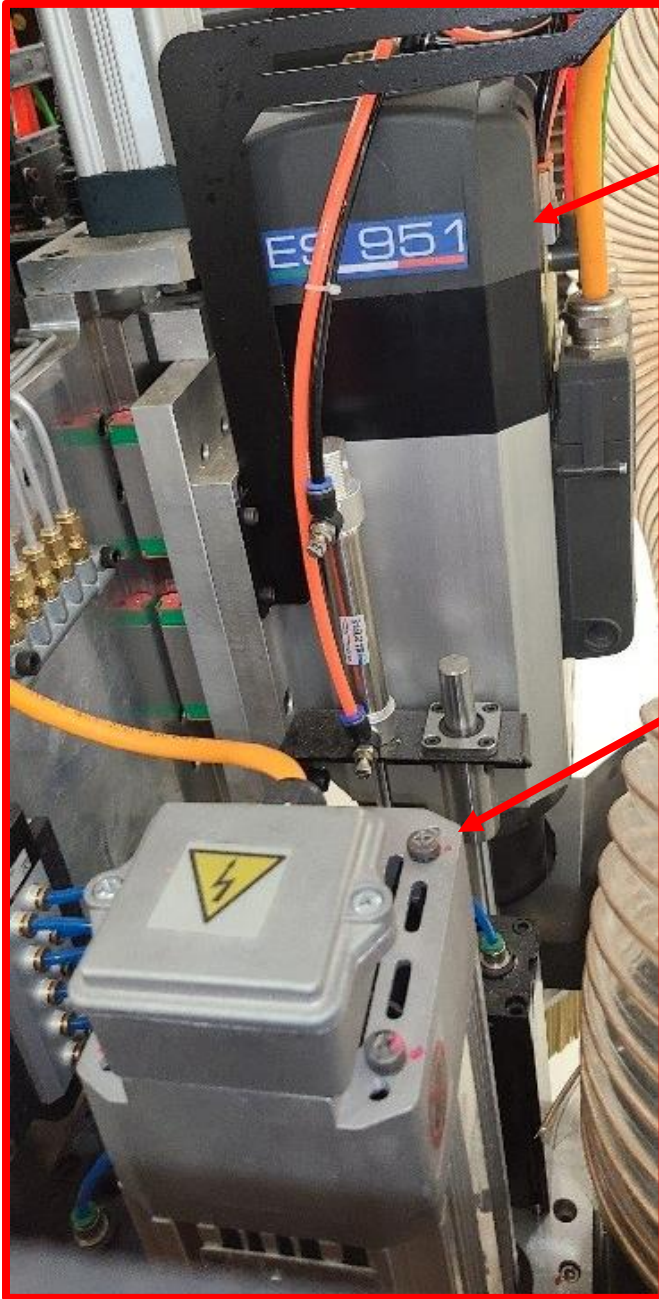
Parts & Description of the Smartshop Autoloader (Smartshop "AL") (Cont'd.)-



Parts & Description of the Smartshop Autoloader (Smartshop "AL") (Cont'd.)-



Parts & Description of the Smartshop Autoloader (Smartshop "AL") (Cont'd.)-



Electric Spindle Assy. on Gantry

Electric Drill Block Assy. on Gantry

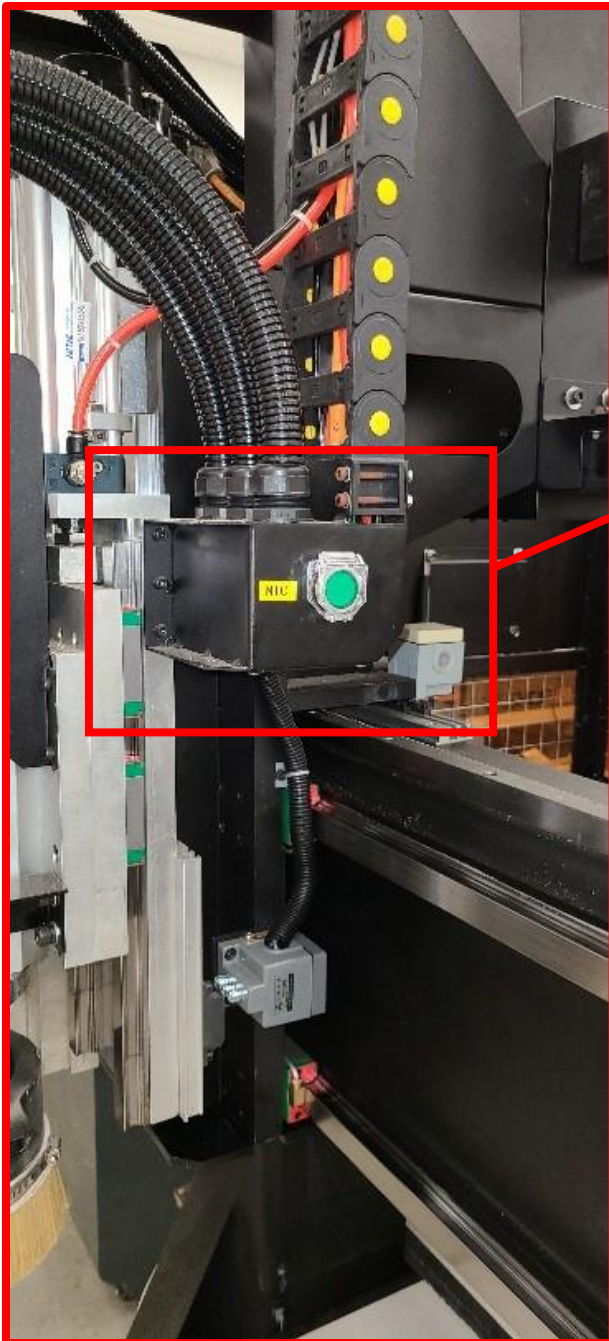


Electric Spindle Assy.



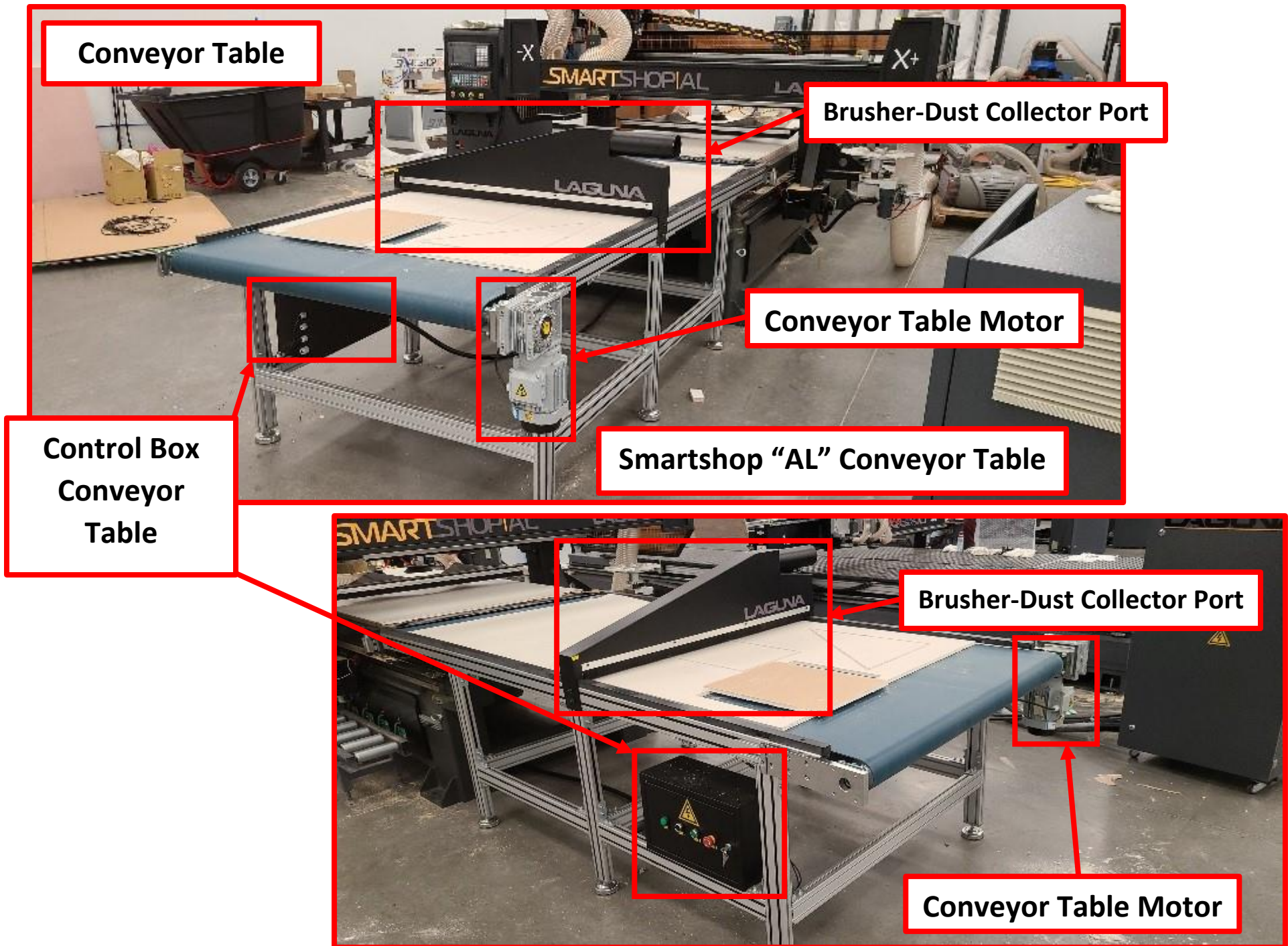
Electric Drill Block Assy.

Parts & Description of the Smartshop Autoloader (Smartshop "AL") (Cont'd.)-



**MTC-Manual Tool Change Button or
Manual Tool Release Button**

Parts & Description of the Smartshop Autoloader (Smartshop "AL") (Cont'd.)-



Parts & Description of the Smartshop Autoloader (Smartshop "AL") (Cont'd.)-



Control Box for Conveyor Table



Emergency Stop Button



**Power Light-
Indicates when
Power is on.**

**Manual-Auto
"On"/"Off"
Switch**

**Conveyor Manual Switch-
Used to move conveyor
belt when Machine is
"Manual Mode".**



Power Key Control Switch

Parts & Description of the Smartshop Autoloader (Smartshop "AL") (Cont'd.)-

Main
Smartshop
"AL" Electrical
Syntec Cabinet



Red Light- Alarmed Out: Something is not set up correctly on the Machine.

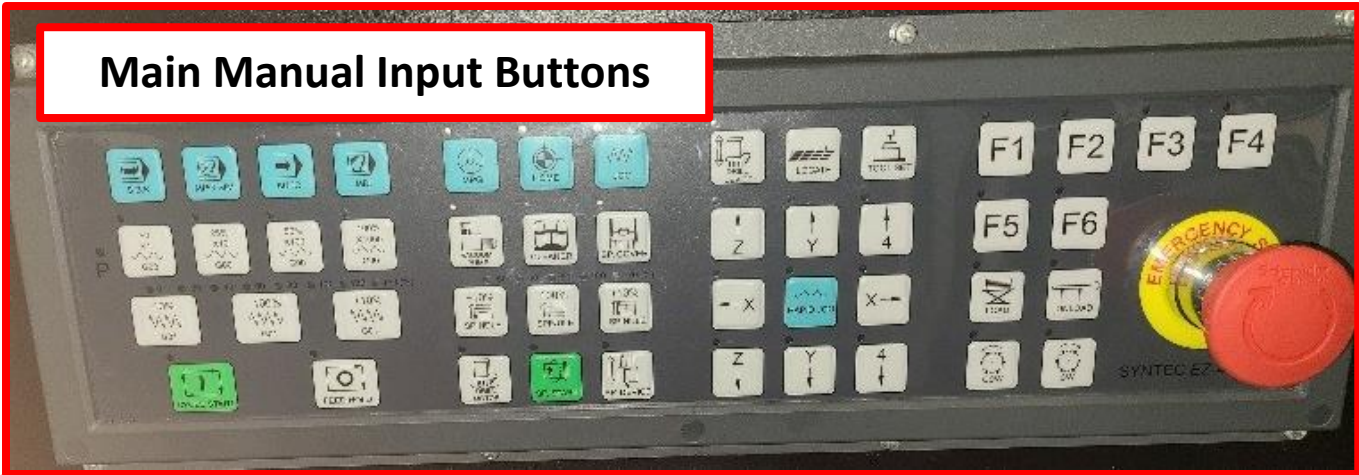
Yellow Light- Machine is in Manufacturing Process.

Green Light- Machine is ready to perform selected or programmed Function.



Main Console Screen

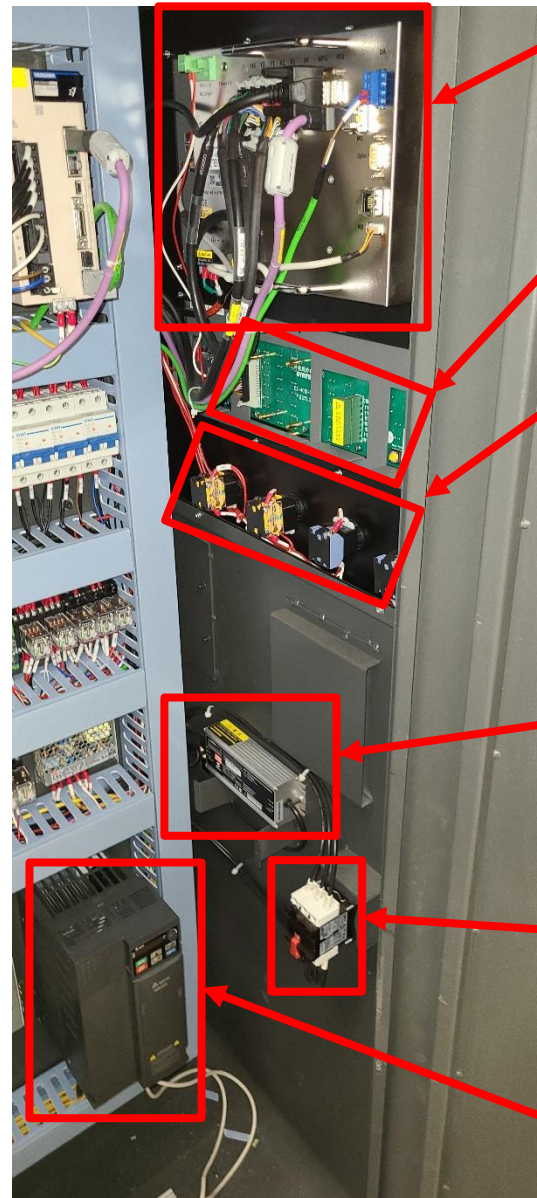
Parts & Description of the Smartshop Autoloader (Smartshop "AL") (Cont'd.)-



Parts & Description of the Smartshop Autoloader (Smartshop "AL") (Cont'd.)-



Side Doors for the Electrical Cabinet of the Smartshop "AL"



Control Screen

Main Manual Input Buttons

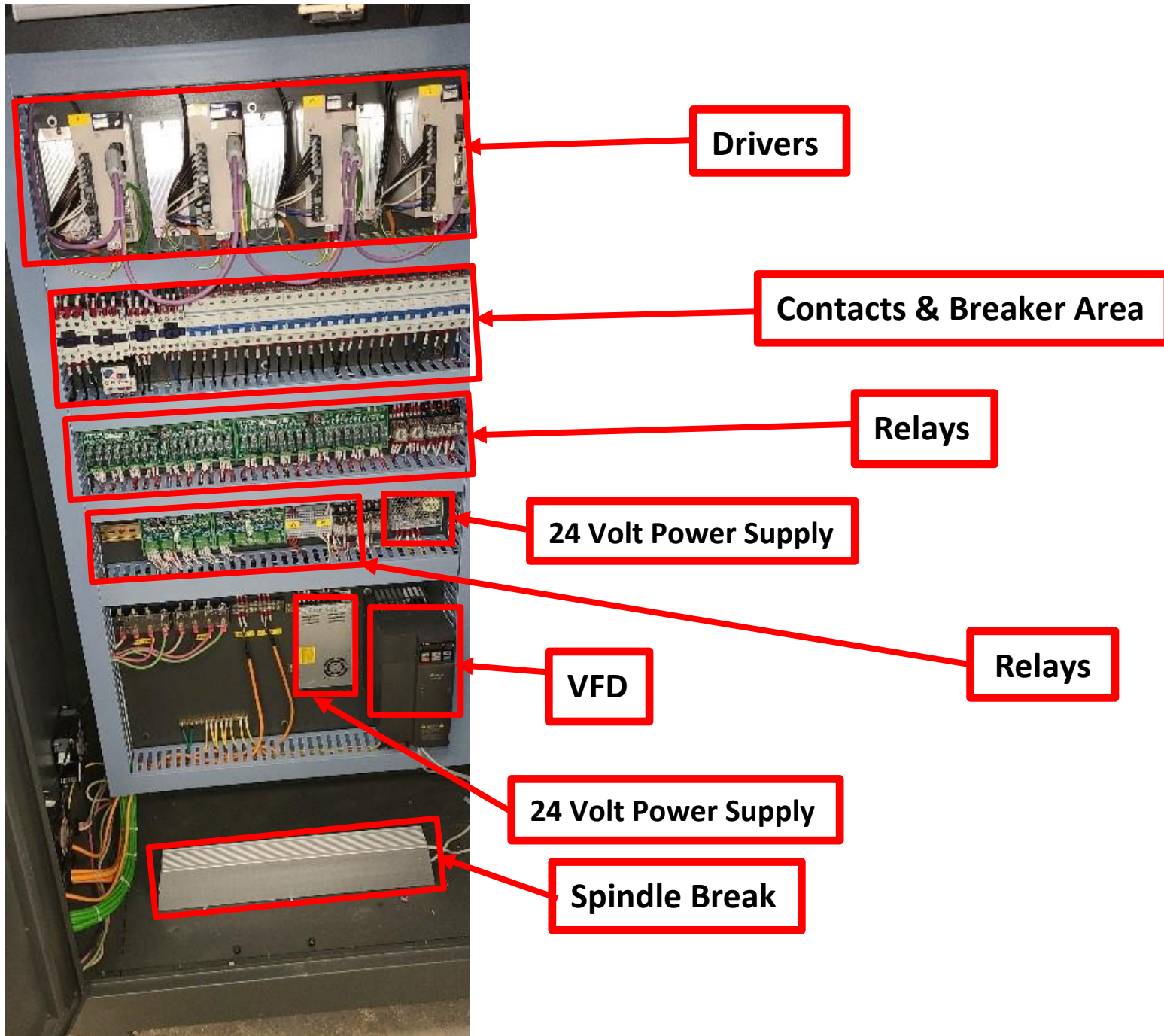
Main Power Console

24 Volt Power Supply

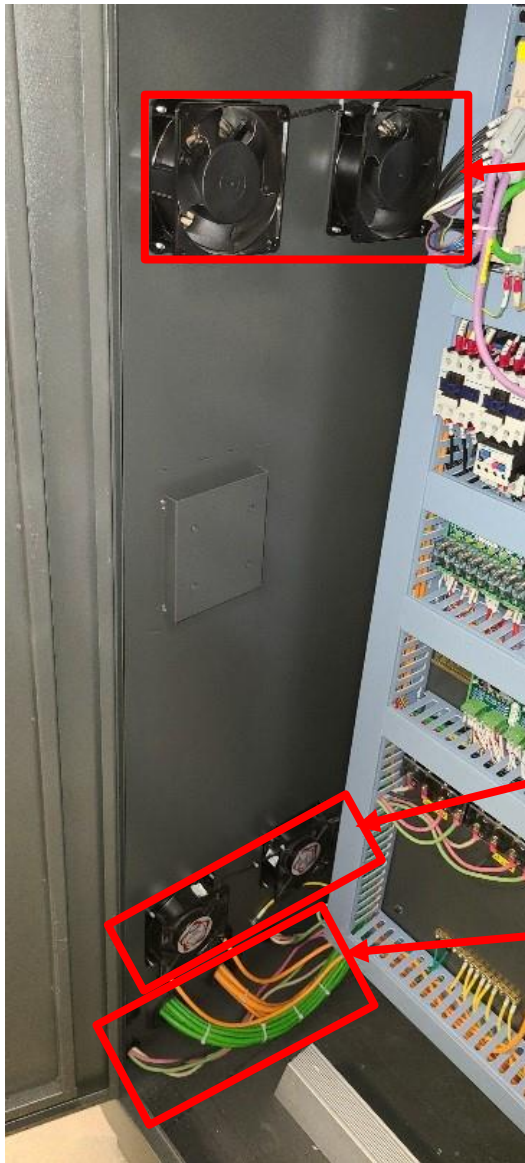
Main Isolation Switch

VFD

Parts & Description of the Smartshop Autoloader (Smartshop "AL") (Cont'd.)-



Parts & Description of the Smartshop Autoloader (Smartshop "AL") (Cont'd.)-



Upper Ventilation

Lower Ventilation Fans.

**Outward Electrical Cables
to Main Outlets for Main
Cables.**

Main Parts and Areas-

Electrical Spindle: For cutting, engraving and other operations. Its compact structure, light in weight, low vibration and noise, high rotation speed and high power have gained it wide popularity with the CNC Router users.

Square Linear Guide Rail: Features high linear accuracy, rigidity, and big dynamic load. The self-lubrication design achieves long service life and consistent accuracy. The machine features **solid welded steel structure**. The material has been vibrated and heat-treated to release the inner stress.

Helical Rack: Each tooth is accurately geared, which enables smooth linear motion and minimum run noise. The load on each tooth is reduced and the movement is ever steadier.

Electrical Cabinet: Houses the controller and other critical electronic components. The user-friendly design gives easy access to the operator. The electrical fan located at the side of the cabinet guarantees effective air flow and keeps the inside cool.

The Gantry: Rigid to carry the spindle's horizontal movement.

Main Parts and Areas (Cont'd.)-

The T-Slot Vacuum Table: Can hold down the work pieces with either vacuum suction power or fixtures, which is easy to use.

Receiving New Machine-

Note: It is probable that your machine will be delivered by a third party. Before you unpack your new machine you will need to first inspect the packing, invoice and shipping documents supplied by the driver. Ensure that there is no visible damage to the packing or the machine. You need to do this prior to the driver leaving. All damage must be noted on the delivery documents and signed by you and the delivery driver. You must then contact the seller (Laguna Tools) as soon as practical. If damage is found after delivery, contact the seller as soon as is practical.

Note: It is probable that you will find sawdust within your machine. This is because the machine has been tested prior to shipment from the factory and / or Laguna Tools. Laguna Tools endeavors to test machines prior to shipping to customers as movement can take place during transportation. It must be noted that additional machine movement can take place between Laguna Tools and the end user and some adjustments may have to be undertaken by the customer. These adjustments are covered in the various sections of this manual.

Installation of Machine-

Where to locate your Machine-

Before you unpack your machine, select the area where you will use your machine. There are no hard and fast rules for its location, but below are a few guidelines.

- 1.) There should be an area around the machine suitable for the length of material that you will be machining.
- 2.) Free from excessive moist, oil and dust.
- 2.) **Adequate Lighting:** The better the lighting, the more accurately and safely you will be able to work.
- 3.) **Solid Floor:** You should select a solid flat floor, preferably concrete or something similar. The machine needs to be properly grounded and balanced.
- 4.) Close to a Power Source(380V-Volt Capacity), ensure a stable power supply: 3~380V50HZ/60HZ or 3~220V50HZ/60HZor 3~415V50HZ/60HZ.
and Dust Collection (Proper created Ventilation Holes Suggested).

Where to locate your Machine (Cont'd.)-

- 5.) Do not operate the machine in a highly magnetic environment.
- 6.) Do not operate the machine if the temperature is below -10°C or above 40°C . If the temperature is higher than 40°C , make sure the place is well ventilated.

Unpacking your Machine-

To unpack your machine, you will need tin snips, a knife, and a wrench.

- 1.) Using the tin snips, cut the banding that is securing the machine to the Pallet [if fitted].

WARNING: EXTREME CAUTION MUST BE USED BECAUSE THE BANDING WILL SPRING AND COULD CAUSE INJURY.

- 2.) Remove the box from the CNC machine if fitted and any other packaging material. The parts ordered with the machine will be packed on or inside the machine. Note. The machine is heavy, and if you have any doubt about the described procedure, seek professional assistance. Do not attempt any procedure that you feel is unsafe, or that you do not have the physical capability of achieving.

- 3.) Use a forklift with sufficient lifting capacity and forks that are long enough to extend the complete width of the machine.

- 4.) Remove the securing bolts that attach the machine to the pallet [if fitted].

- 5.) Approaching the machine from the side, lift the machine on the frame taking care that there are no cables or pipes around the forks.

- 6.) Move the machine to the required position and lower gently to the floor.

Unloading Requirements-

- 1.) When the Crate containing your newly purchased Smartshop® Laser/CBX is delivered, it will be delivered “Curbside”, in other words the Machine will be delivered in front of the Driveway of one’s Garage/Shop or Workspace. (****It is the Purchasers responsibility of moving the Machine into His or Hers Garage/Shop or Workspace.****)
- 2.) One should obtain a Crane: Hydraulic crane / crane (10T or above, 4 groups of 10T rings, 2 10M long, 10T straps).
- 3.) One should obtain a Forklift: The forklift can fork items weighing 10T or more.
- 4.) To Open Crate-Acquire some standard tools for taking apart the Crate.

a.) Hammer.



b.) Pry Bar.



Unloading Requirements (Cont'd.)-

c.) Wire Cutters.



d.) Cordless Drill.



5.) Cut all straps only on the Crate.

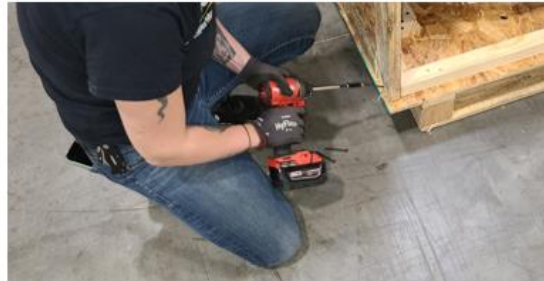


Unloading Requirements (Cont'd.)-

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



7.) Unscrew and Remove Side Panels of Crate.



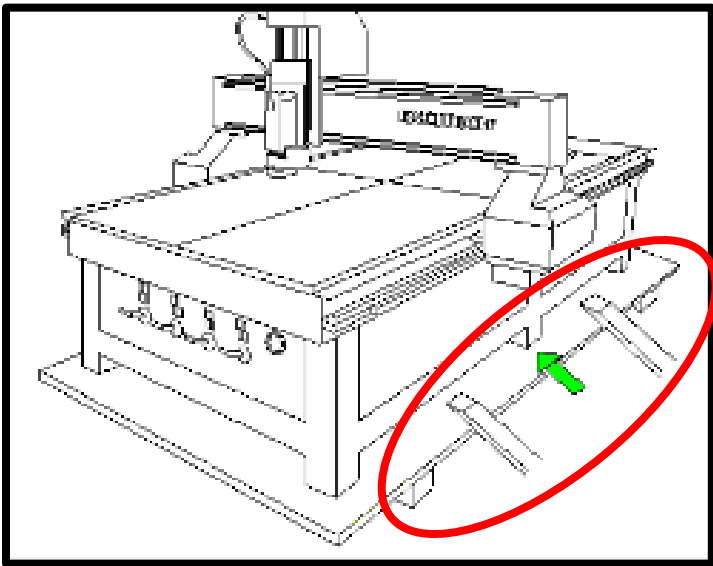
Smartshop "AL"-Autoloader Damage Notification-

- 1.)The Machines are thoroughly tested before leaving any or 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.**

SHIP FROM		SHIP TO		THIRD PARTY FREIGHT CHARGES BILL TO			
Laguna Tools 744 Refuge Way Suite #200 Grand Prairie, TX 75050 SID No.:		[Name] [Street Address] [City, ST, ZIP Code] CID No.:		[Name] [Street Address] [City, ST, ZIP Code]			
Bill of Lading Number:		Carrier Name:		SCAC:			
BAR CODE SPACE		Trailer number: Serial number(s):		Pro Number:			
Special Instructions:		Freight Charge Terms (Freight 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	Pallet/Slip (circle one)		Additional Shipper Information		
			Y	N			
			Y	N			
			Y	N			
			Y	N			
Grand Total							
CARRIER INFORMATION							
Handling Unit		Package		Commodity Description		LTL Only	
Qty	Type	Qty	Type	Weight	HM (X)	NMFC No.	Class
Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property as follows: "The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____"				COD 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 § 14706(c)(1)(A) and (B).							
Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, adherence to the terms, classifications, and rules that have been established by the carrier and are available to the shipper, on request, and to 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/Date				Trailer Loaded: <input type="checkbox"/> By shipper <input type="checkbox"/> By driver		Carrier Signature/Pickup Date	
This is to certify that the above-described materials are properly classified, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the DOT.				Freight Counted: <input type="checkbox"/> By shipper <input type="checkbox"/> By driver/pallets said to contain <input type="checkbox"/> By driver/pieces		Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and/or carrier has the DOT emergency response guidebook or equivalent documentation in the vehicle. Property described above is received in good order, except as noted.	

Installation of Machine-

- 1.) After unpacking the machine, check with the accessory list (in the toolbox) to see if there is any shortage, omission, mistake, or damage. Contact your supplier immediately if there is (Utilize Laguna Tools Damage Notification Procedure.).
- 2.) Remove the package after opening the box. Remove the banding that is securing the machine to the pallet.
- 3.) Use a forklift to take the machine out of the case. Make sure the machine is properly grounded. Enough room should be left for the machine as well as the operator.



Installation of Machine (Cont'd.)-

4.) Place the electrical cabinet on the left of the machine. Make sure all the circuit and electrical components are all inside.



5.) Place the vacuum pump behind the machine and check the appearance.

6.) Check all the accessories according to the list in the toolbox. Wipe the anti-rust oil on the surface of the machine tool with clean cotton yarns. Lubricate the linear guide, ball screw and rack.

7.) Remove the supports of Y axis, and all other affected areas. Check the limit parts on each axis.

Installation of Electric Cabinet-

Place the electric cabinet in front of the gantry and balance it on the floor. Check all the electric components and circuits in the cabinet.



Electric Installation-

Electrify the following lines(as shown in the figure). Please test to guarantee 380V stabilized voltage before electrification.



Main Power Isolation Switch

Vacuum System-

VXLF 2.500

X-Series for x-tra operating hours

- Rotary vane vacuum pumps, oil-free and air-cooled
- incl. integrated suction filter, vacuum relief valve and blow off valve

X-Serie für x-tra Betriebsstunden

- Drehschieber-Vakuumpumpen, trockenlaufend und luftgekühlt
- inkl. integriertem Ansaugfilter, Vakuumsicherheitsventil und Abblaseventil

X-Série pour les heures de travail x-tra

- Pompes à vide à palettes, fonctionnant à sec et refroidies par air
- incl. filtre d'aspiration intégré, soupape de sécurité vide et soupape d'échappement

X-Serie per x-tra ore operative

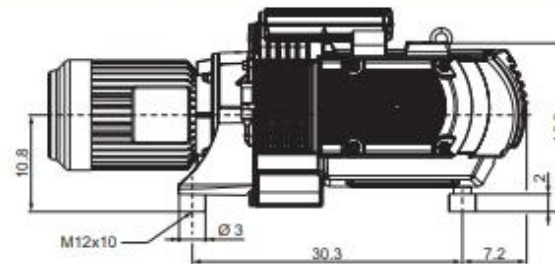
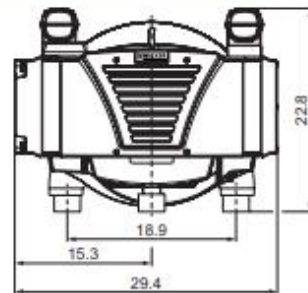
- Pompa per vuoto a palette, funzionanti a secco e raffreddate ad aria
- incl. filtro di aspirazione integrato, valvola di sicurezza vuoto e valvola di sfogo

X-Series para las horas de funcionamiento x-tra

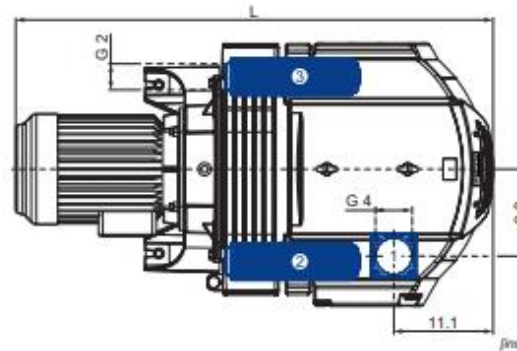
- Bombas de vacío de paletas, sin aceite y refrigerado por aire
- incl. filtro de aspiración integrado, válvula de seguridad de vacío y válvula de escape



Fig. VXLF 2.400



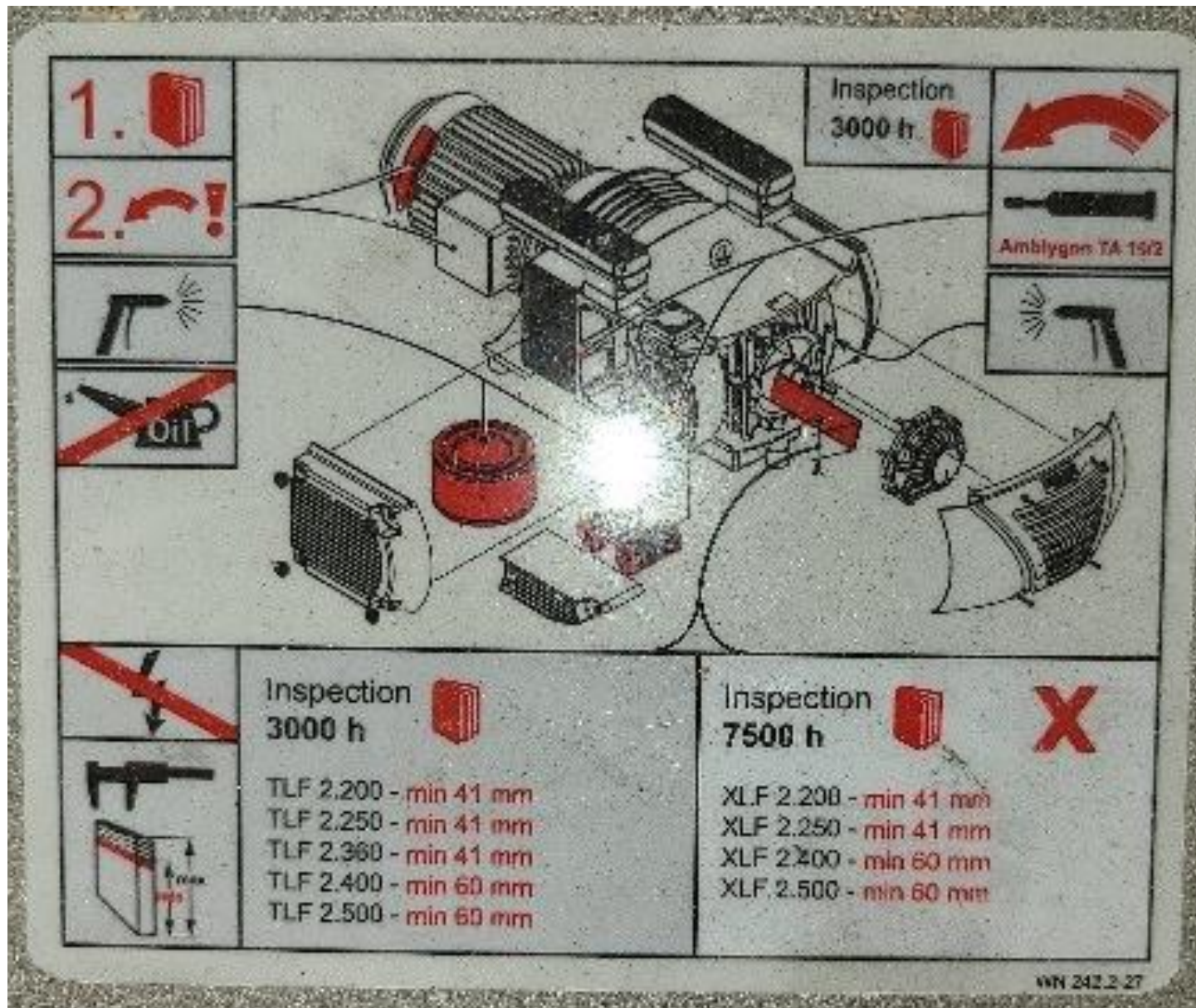
- 1 Vacuum connection
Saugenschluss
Raccordi vite
Raccordo aspirazione
Conexión de vacío
- 2 Vacuum relief valve with silencer
Vakuumsicherheitsventil mit Schalldämpfer
Soupape de sécurité vide avec silencieux
Valvola di sicurezza vuoto con silenziatore
Válvula de seguridad de vacío con silenciador
- 3 Exhaust air silencer
Abblaseventil mit Schalldämpfer
Silencieux échappement d'air
Silenciador escapeo aire
Silenciador de escape de aire



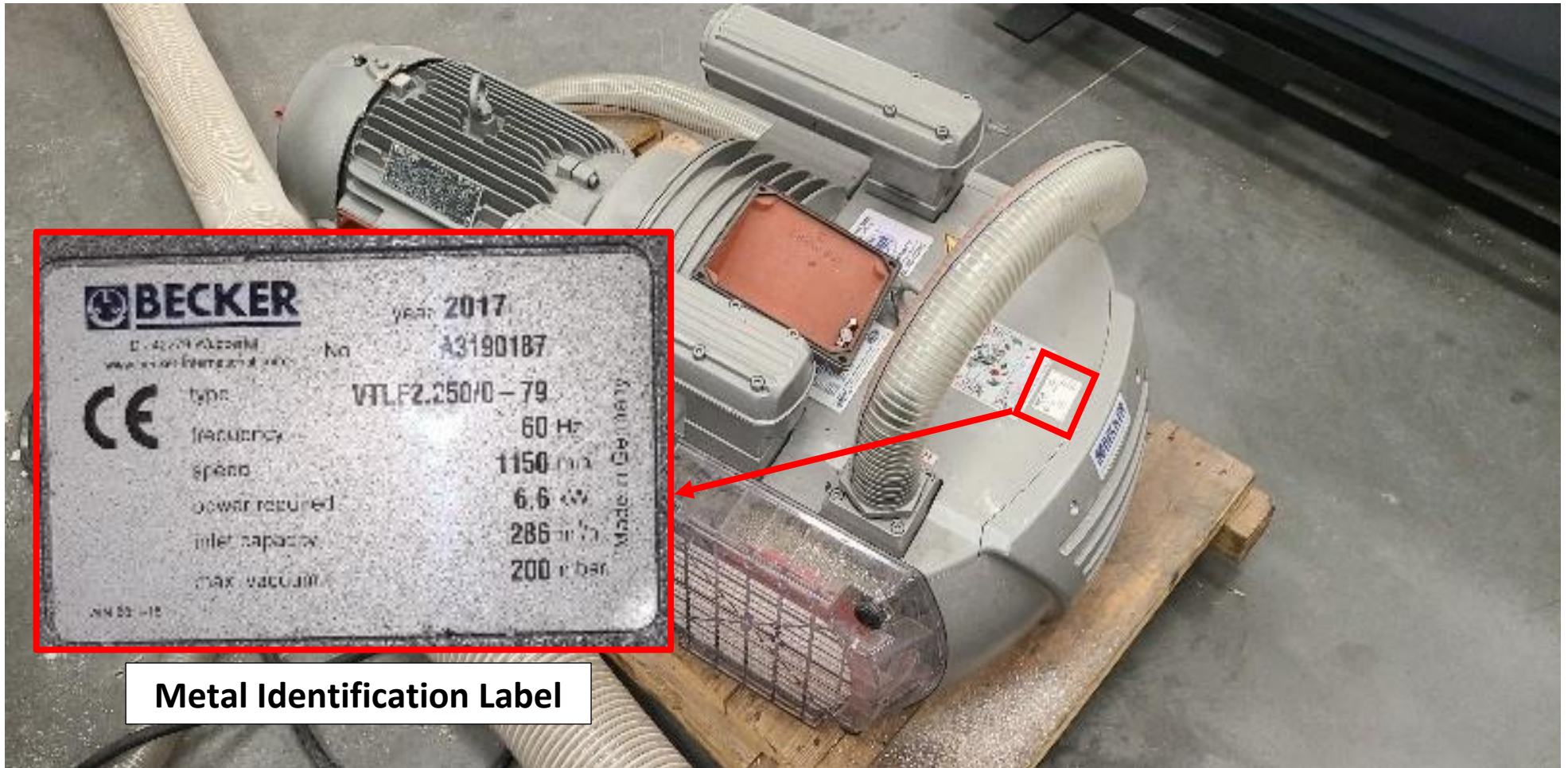
CFM		in. HgV		hp 3~		lbs	dB(A) ¹⁾								
50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz		50 Hz	60 Hz							
291	336	22.1	22.1	14.8	17.7	546.8 + (M)	79	80							
50 Hz		60 Hz		lbs		№		L							
(M)	hp	V	rpm	A	hp	V	rpm	A	lbs	№	L				
3~	14.8	Δ400	IE3	978	24.9	17.7	Δ460	IE3	1185	25.0	359.4	IP55 • ISO F • bimetel	43289690300003TA	58.2	
							Δ400	–	1180	27.3					
3~	–	–	–	–	17.7	YY230/Y480	IE3	1185	50.6/25.3	358.3	UL (E235514) • CSA • CC (329B)	IP55 • ISO F • bimetel	43289607300114TA	58.2	
						YY208	–	1180	52.9						
3~	14.8	Δ200/Y350	IE3	985	45.9/26.5	17.7	Δ220/Y380-400	IE3	1185	49.0/28.3-27.2	359.4	UL (E235514) • CSA • CC (329B)	IP55 • ISO F • bimetel	43289653300114TA	57.9
							Δ200/Y350	–	1177	52.8/30.5					
3~	–	–	–	–	17.7	Δ400	IE3	1185	27.8/16.1	359.4	UL (E235514) • CSA • CC (329B)	IP55 • ISO F • bimetel	43289654300114TA	58.2	

1) DIN EN ISO 3744 (KpA = 3 dB(A))
Interval of 39.4 inch, at medium load, both connection sides piped
DIN EN ISO 3744 (KpA = 3 dB(A))
Abstand von 39.4 inch, bei mittlerer Belastung, beide Seiten abgeleitet
DIN EN ISO 3744 (KpA = 3 dB(A))
Intervalle de 39.4 inch, à régime moyen, avec dérivation des deux côtés
DIN EN ISO 3744 (KpA = 3 dB(A))
Intervallo di 39.4 inch, a medio regime, entrambi i lati derivati
DIN EN ISO 3744 (KpA = 3 dB(A))
Intervalo de 39.4 inch, at media carga, derivados de ambos lados
• Dimensions in inch
Maßangaben in inch
Mesures en inch
Misure in inch
Dimensiones en inch

Assembly Vacuum Pump & Ventilation-



Assembly Vacuum Pump & Ventilation-

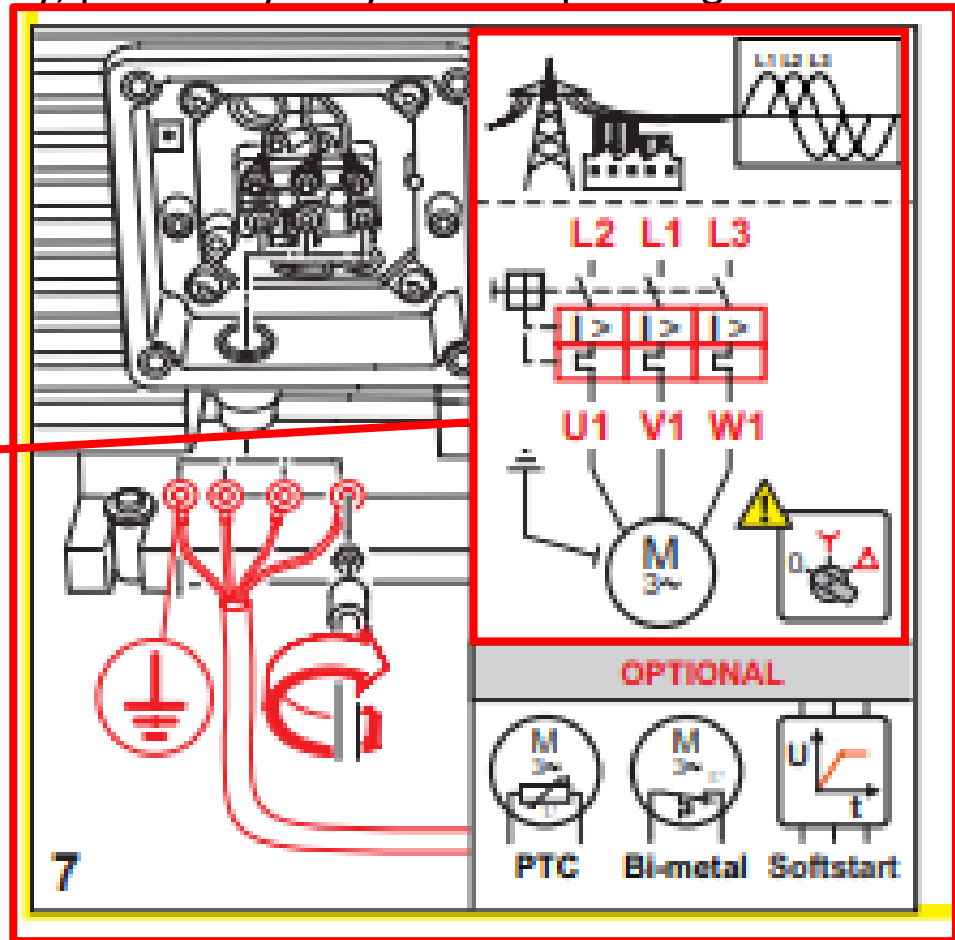
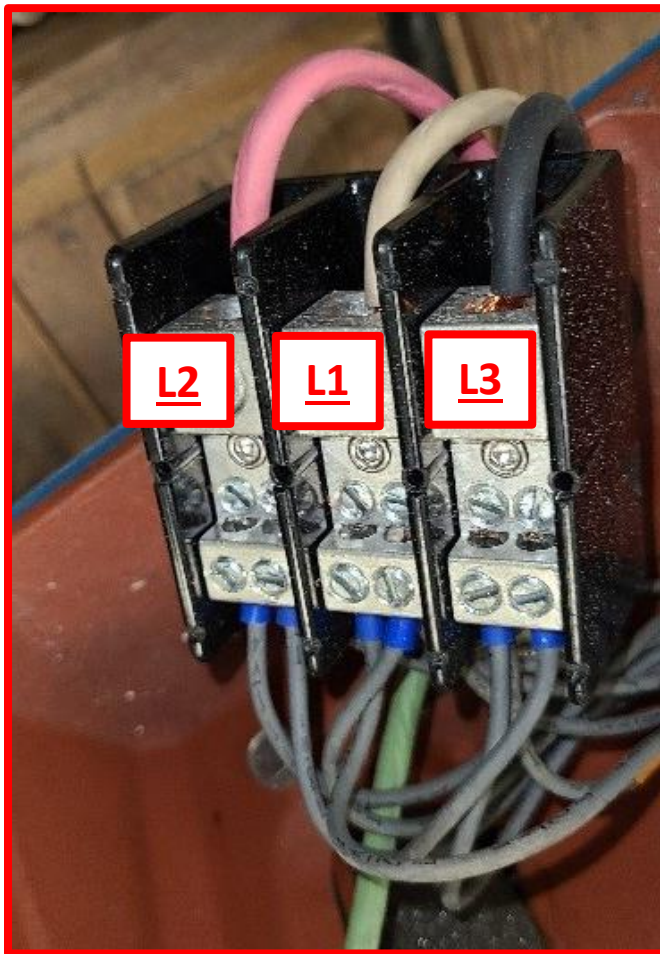


1.) Connect the tubes to the Vacuum Pump:

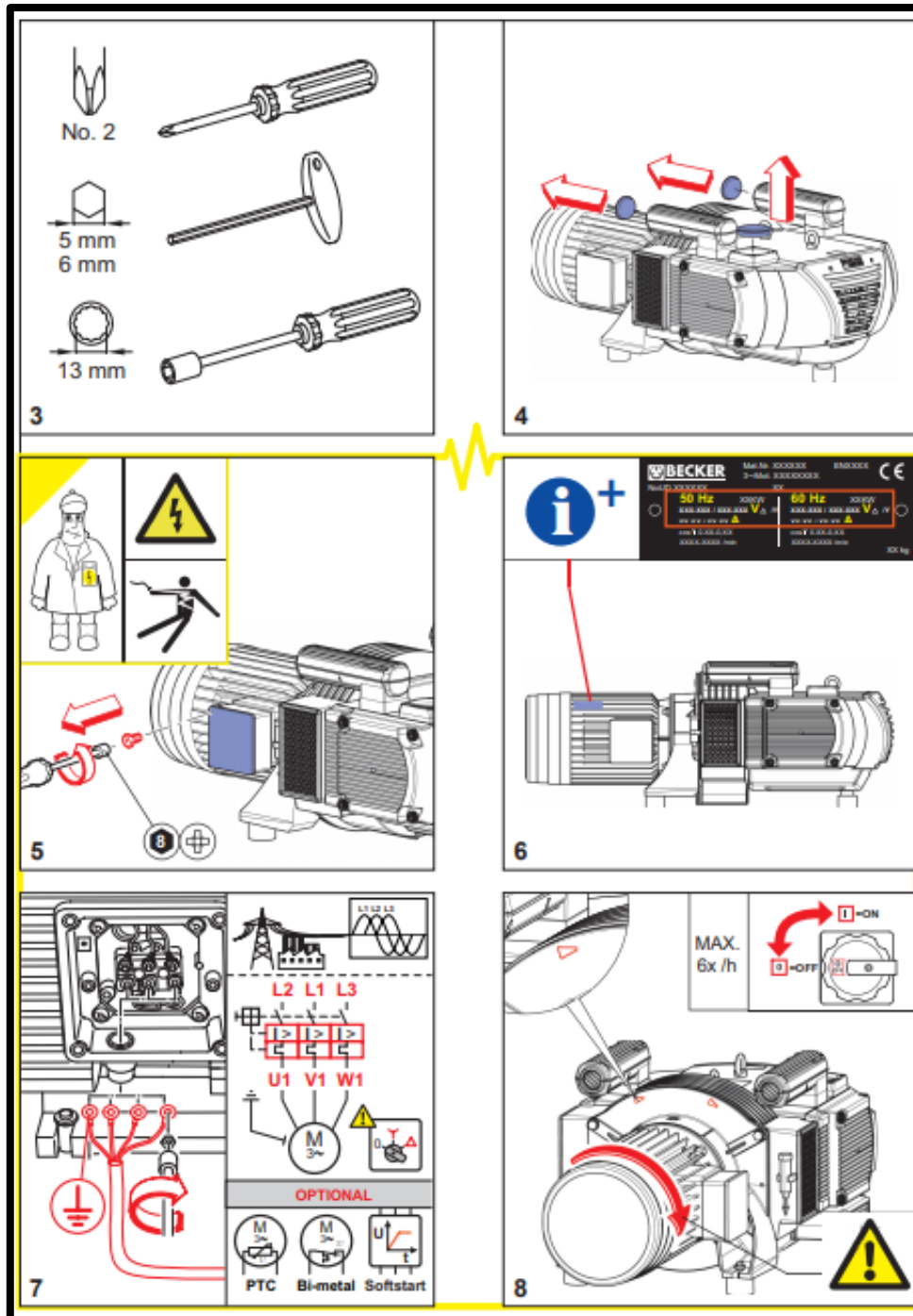
Make sure they are fitted tightly as you do not want to lose vacuum due to poor connection.

2.) Connect Power to the Pump:

- Check the label on the pump to ensure you have the correct voltage. Connect power as shown in the pictures.
- After powering up the machine, check if the pump is rotating in the CW direction. If the rotation is in the CCW direction, you should immediately turn it off and exchange the two phases of the wire.
- Make sure to clean the filter frequently, preferably daily before operating.



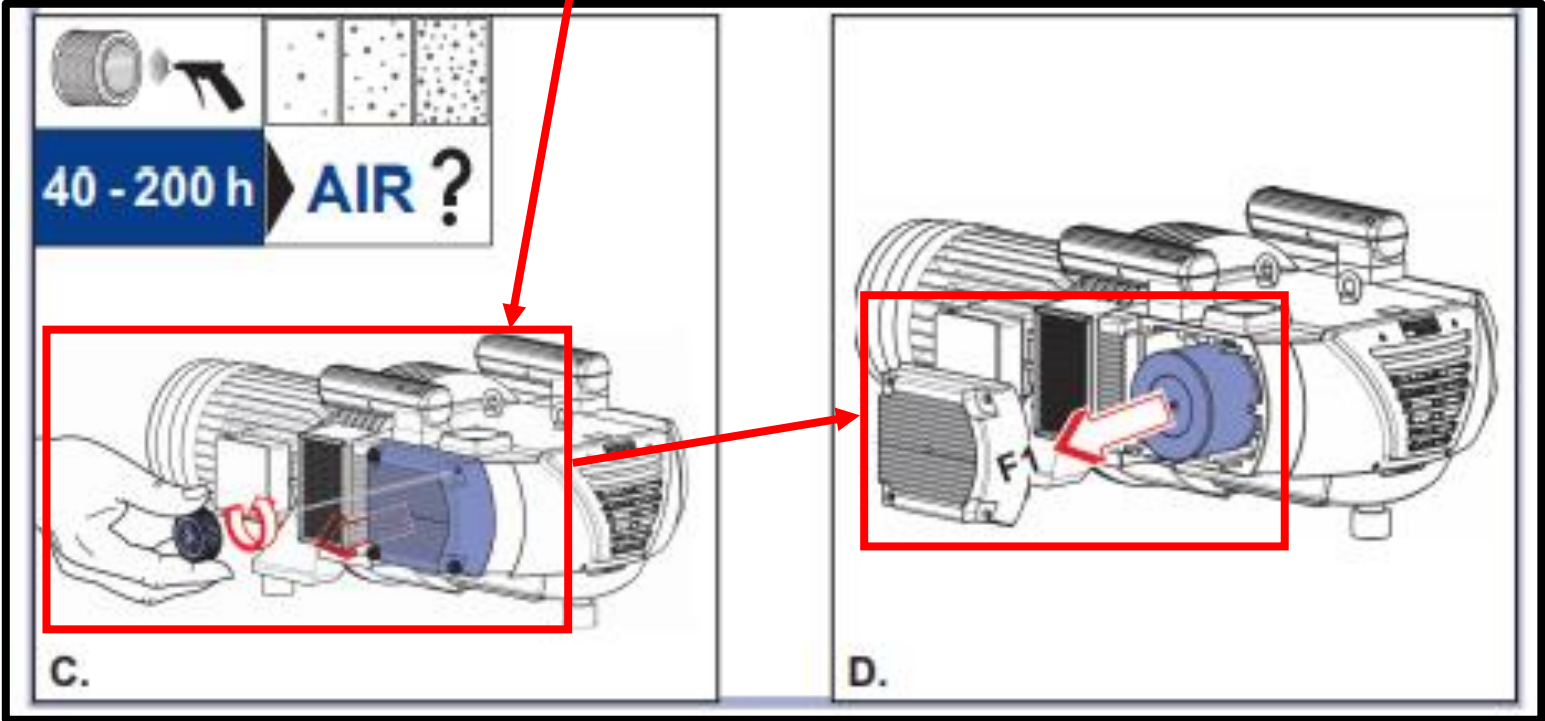
3.) Power Connection of the Vacuum Pump-



4.) Air Compressor Power Supply-

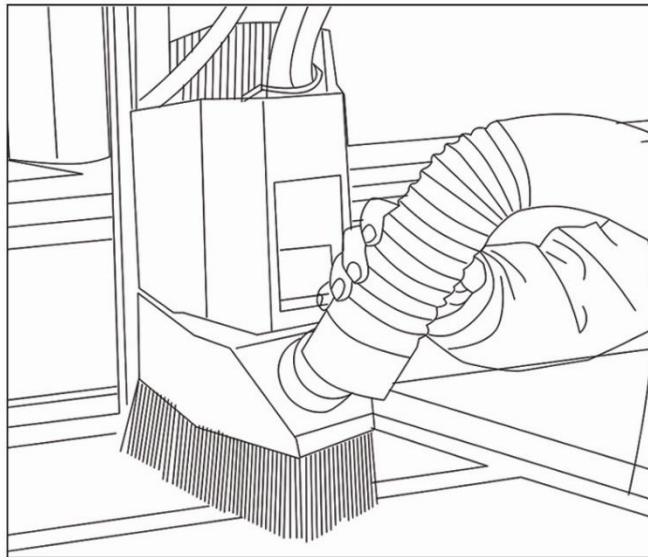
	<p>0 2 3 10 [m]</p> <p>4" 4" 5" + 1x</p>		
<p>9</p>			
<p>A.</p>		<p>B.</p>	<p>n=0 min⁻¹</p>

5.) Air Filter to Compressor-



6.) Dust Collector-

- a.) Take out the dust collector and install it according to the instruction. Balance it on the floor.
- b.) Connect cable to the dust collector.
- c.) Connect the cable to the power supply.
- d.) Connect one end of the hose to the dust collector and the other to the machine, as indicated below.
- e.) Power on the machine to see if the motor rotates CW. If not, swap any two of the live wires.



Test Run-

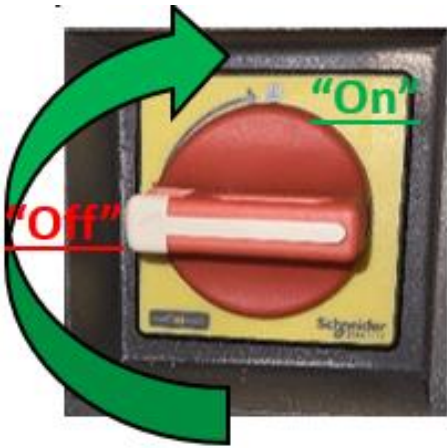
Preparation-

- (1) Check if the appearance of the machine is intact and if all the moving parts are at the Home position.
- (2) Check to make sure none of the electric components in the cabinet are loose or damaged, and none of the wire terminals get loose.
- (3) Check if all the safety devices are complete and all the buttons and electric parts are in the right positions.
- (4) Check if the tool clamps and fixtures are installed tightly and check if they are displaced or damaged.
- (5) Check if any electric components are damaged or the wire terminals are loose.
- (6) Check if the cables are connected tightly. The zero line should be N or P line. Connection must be made according to the right line numbers or else short circuit might occur.
- (7) Disconnect the circuit breaker and see if there is any abnormality. If so, clear the error before operating the machine. Have a thorough inspection for all the parts and electronics before turning on the power supply.

- Check the pressure of each pressure indicator.



- Turn “On” the power supply and switch on the machine.



- Turn the Power Key to the “On” Position, the Green “Power On” indicator light will go “On”, then turn the “Vacuum” Switch to the “On” Position.



Software/Control Operation Instructions (Syntec Software)-

The Control Software Interface will automatically materialize on the computer screen when the machine is powered up and turned on.

The Machine “B” Parameter Setting, will not be present, unless one selects the setting in a prior operation.



Home Process: Make sure the machine is in “Home Mode” and “Click” on each Axis Button “XYZ” to go to Home.

Software Operation-

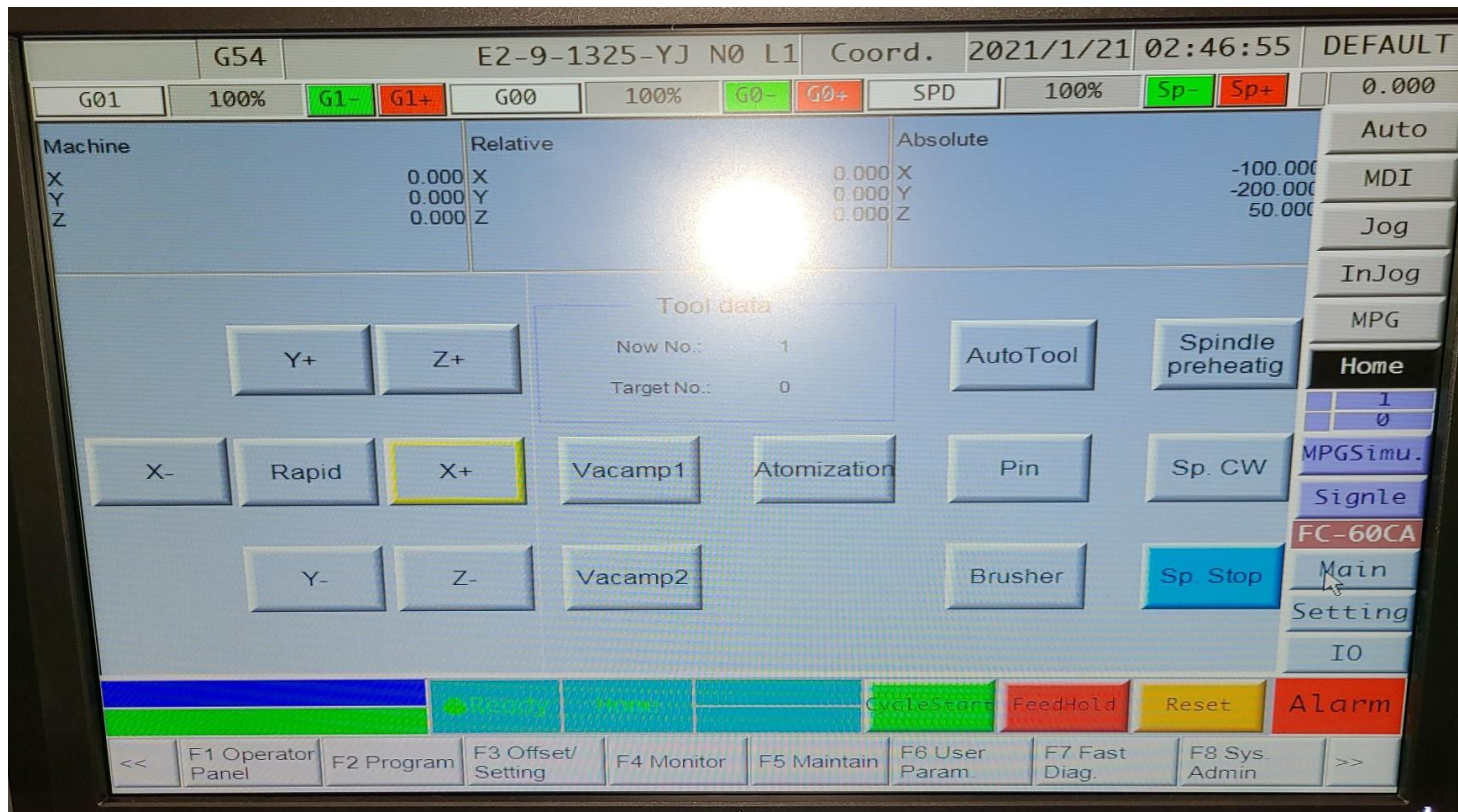
1.) About Syntec Folder:

Please do not delete Disk "C" and Network in the : "D" Disk of the computer.

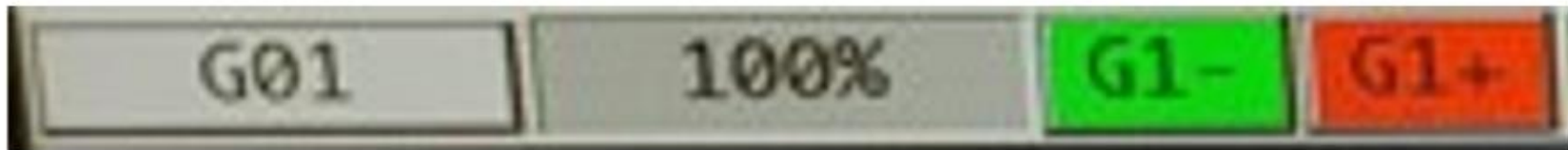
Disk "C" Folder: System Interface File, Connect Controller, Modify Parameter Setting.

Network Folder: The process is stored here.

Main Interface-

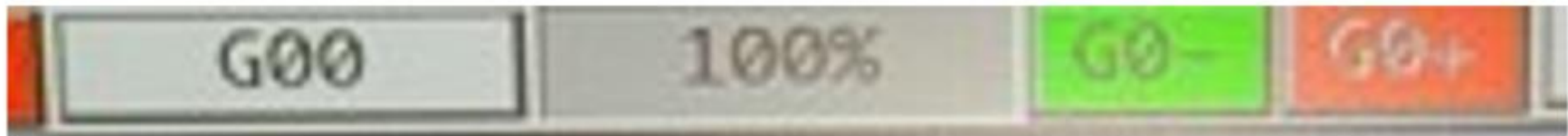


Processing Speed Adjustment

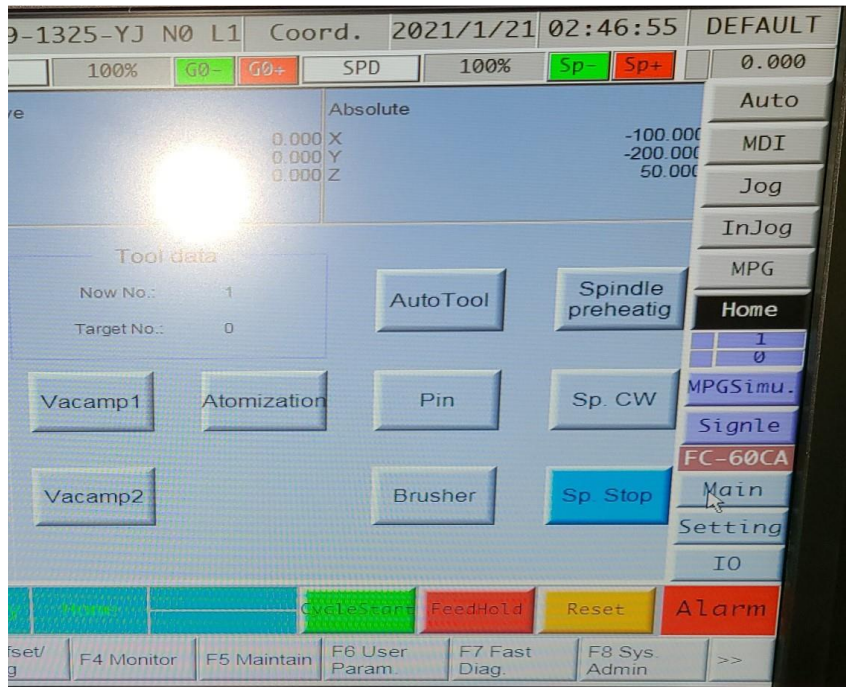


Press **G1-** or **G1+** to reduce and increase the processing speed.

Rapid Speed Adjustment-



Press **G0-** or **G0+** to decrease and increase the Rapid Speed Adjustment



OVER TRAVEL: Cancel hardware overdrive alarm.

AUTO TOOL : Tool length is measured using an Auto Tool Sensor.

SPINDLE PREHEAT: Preheat the spindle, if you do not use the machine for a long time, you need to use this function.

VACUUM1 OFF: Vacuum Pump1 On.

VACUUM2 OFF: Vacuum Pump2 On.

SP. CW: Spindle Clockwise.

SP. STOP: Spindle Stop.

BRUSHER: Spindle Brush Up and Down

“O” PIN DOWN: Under positioning cylinder down.

Machine Operation Instruction (Cont'd.)-

Power On-

1.) To turn the Main Power "On", Turn the Main Power knob on the electric cabinet door, Clockwise to the "On" Position.



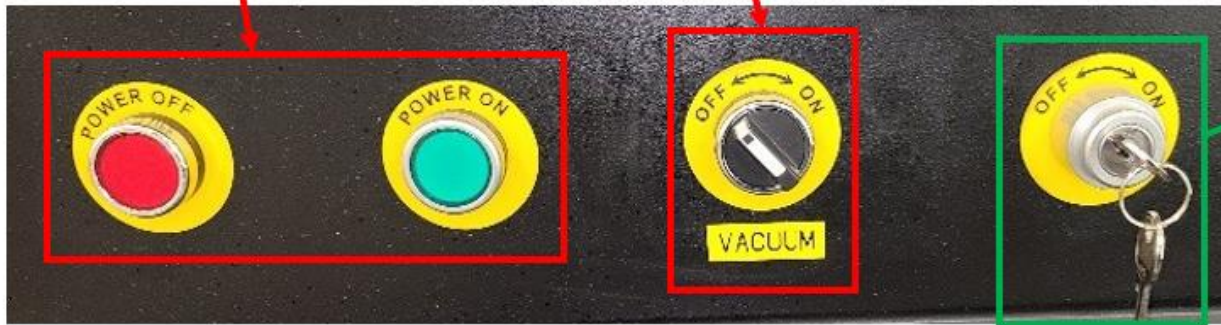
2.) Release the emergency Stop Button on the PC, and the System enter the main interface after the Auto Check.



"Emergency Stop Button".

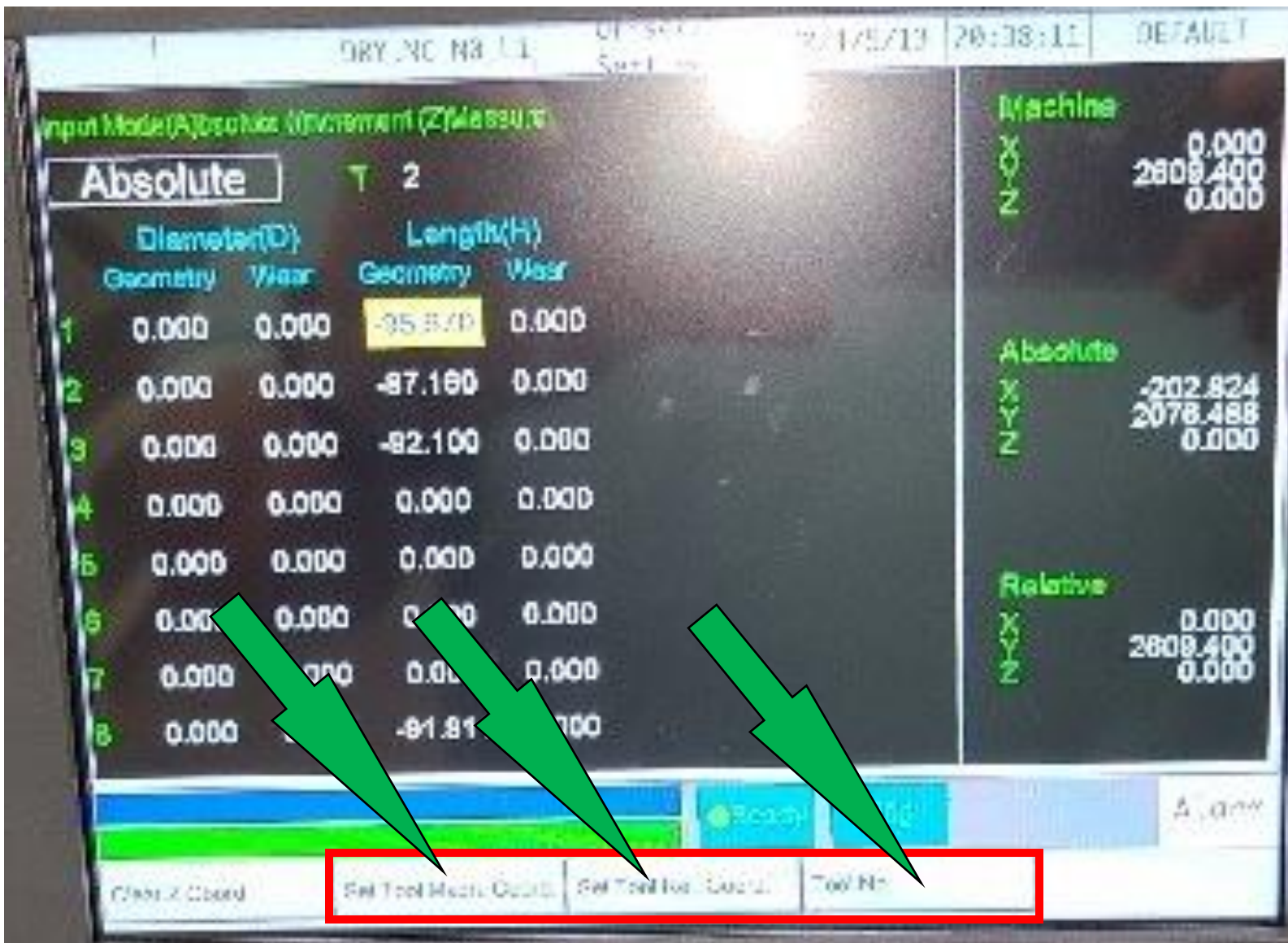
Power "On" & "Off Lights

Power "On" & "Off Switch to Vacuum.



3.) To start the Personal Computer (PC) Turn-Key Switch to the "On" Position.

Tool Management Interface-



Auto Tool Set-

Machine Operation Instruction (Cont'd.)-

Power Off-

1.) To turn "Off" machine, first press the "Emergency Stop Button".



2.) Shut Down the Personal Computer (PC) Turn-Key Switch to the "Off" Position.

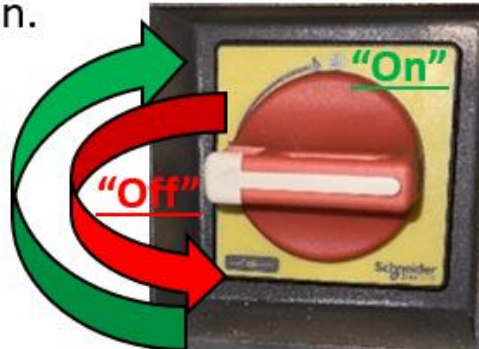
Power "On" & "Off Lights



Power "On" & "Off Switch to Vacuum.



3.) To turn the Main Power "Off", Turn the Main Power knob on the electric cabinet door, Counter-Clockwise to the "Off" Position.

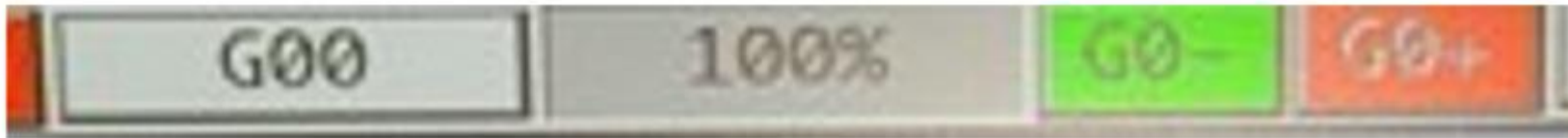


Machine Operation Instruction (Cont'd.)



Operator can jog the machine in the desired direction. Methods: Click on the “ Manual Jog Button” to enter. Control the movement with axes directional keys -- 『X+,X-,Y+,Y-,Z+,Z-』 . Caution: Click on the “G0-” key to reduce the speed before entering this mode. If it is safe, you can use the “ G0+” button to increase the speed.

Rapid Speed Adjustment-



Press **G0-** or **G0+** to decrease and increase the Rapid Speed Adjustment

Machine Operation Instruction (Cont'd.)-



Operator can move the axes by spinning the “ **MPG Handwheel**”.

Methods: Select the “ **MPG MODE**” Define the axis, direction and speed.

i.) Spin the handwheel in the Clockwise (CW) direction, the machine will move in the positive direction.

ii.) Spin in the Counter -Clockwise (CCW) direction, the machine will move in the negative direction.

The speed is determined by the selected speed value.



Operator can process a job under this mode. The machine will automatically run the NC program.

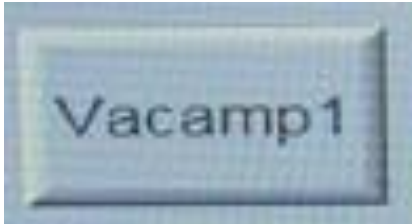
Methods: Select the program file you wish to process. Set the job origin and tool length offset value, then press “ **Auto Mode Button**”. This mode is only available after all axes have been homed.

Press the “ **Auto Mode Button**” and the system will begin process the selected file.

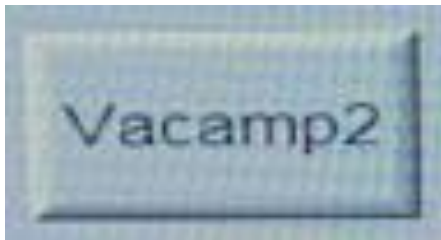
Machine Operation Instruction (Cont'd.)-



This mode allows the operator to write one block and execute that block.



When you press this button, the vacuum will be turned on.



Press once, the vacuum pump will be turned on. Press again, the pump will be turned off.

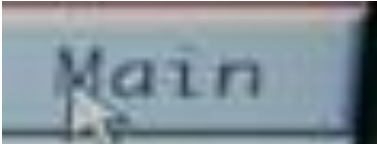


Press once, the pop -up pins will rise. Press again, the pins will go down.

Machine Operation Instruction (Cont'd.)-



Press to access the Tool Screen.



Press to go to the main screen.



Press to Reset.



Under Auto and MDI Modes, press once to start processing the program.

Machine Operation Instruction (Cont'd.)-



Press to "**Freehold Button**" to pause the process. If you wish to restart, press "**Cycle Start Button**" for "**Program Start**" to restart.



Under manual continuous mode, manual jog mode and handwheel mode, **pressing this button can stop the spindle.**



Press to make the spindle spin in the Clockwise (CW) direction under manual continuous, manual jog and handwheel modes.



Machine Operation Instruction (Cont'd.)-

“Go Home”

Caution: All axis must be homed after power is “On”.

As tool setting and job coordinate setting must be done based on the mechanical reference point, after CNC is switched on, reference point must be confirmed with all axes going back “Home”.

The Syntec Controller can't be started by auto NC program.

Note: “**HOME**” Z axis before other X, Y Axis to avoid interference.

Note: The homing function homes all three axes together.

Note: After homing, the mechanical coordinates are all “0”.

Note: The software limit switches of the machine are not enabled until all axis are reset.

Do not engage the machine in movement too fast until the axis are reset.

Machine Operation Instruction (Cont'd.)-

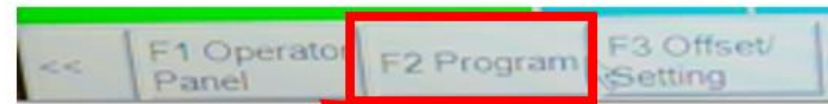
Part Program Selection-

Select "F2 PROGRAM"-



1.) Select "F2" Program.

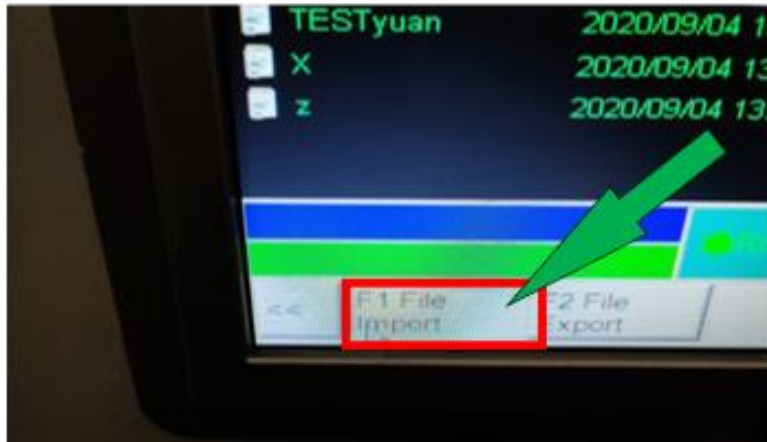
2.) then Select "F3" File Manager.



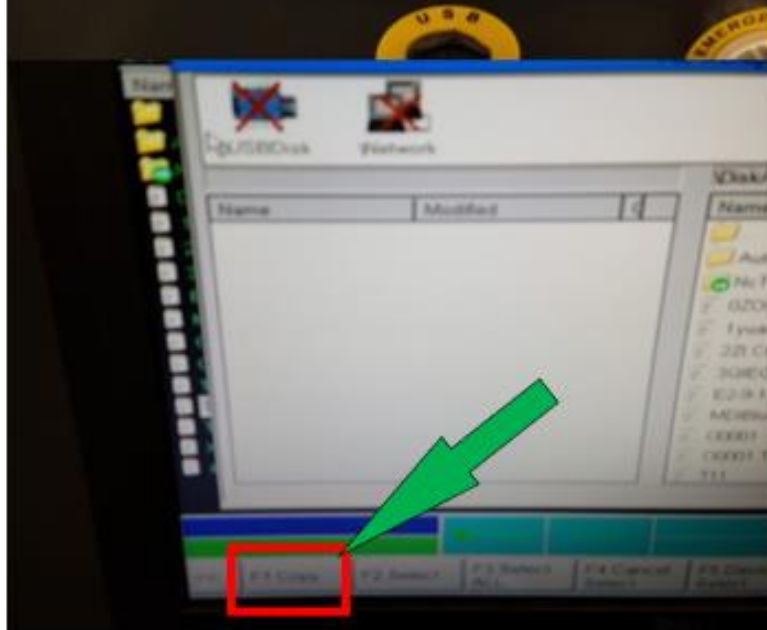
Machine Operation Instruction (Cont'd.)-

Part Program Selection-

Select the processing file, then “F1 Execute”.



3.) Select “F1”-File Import for Execution.

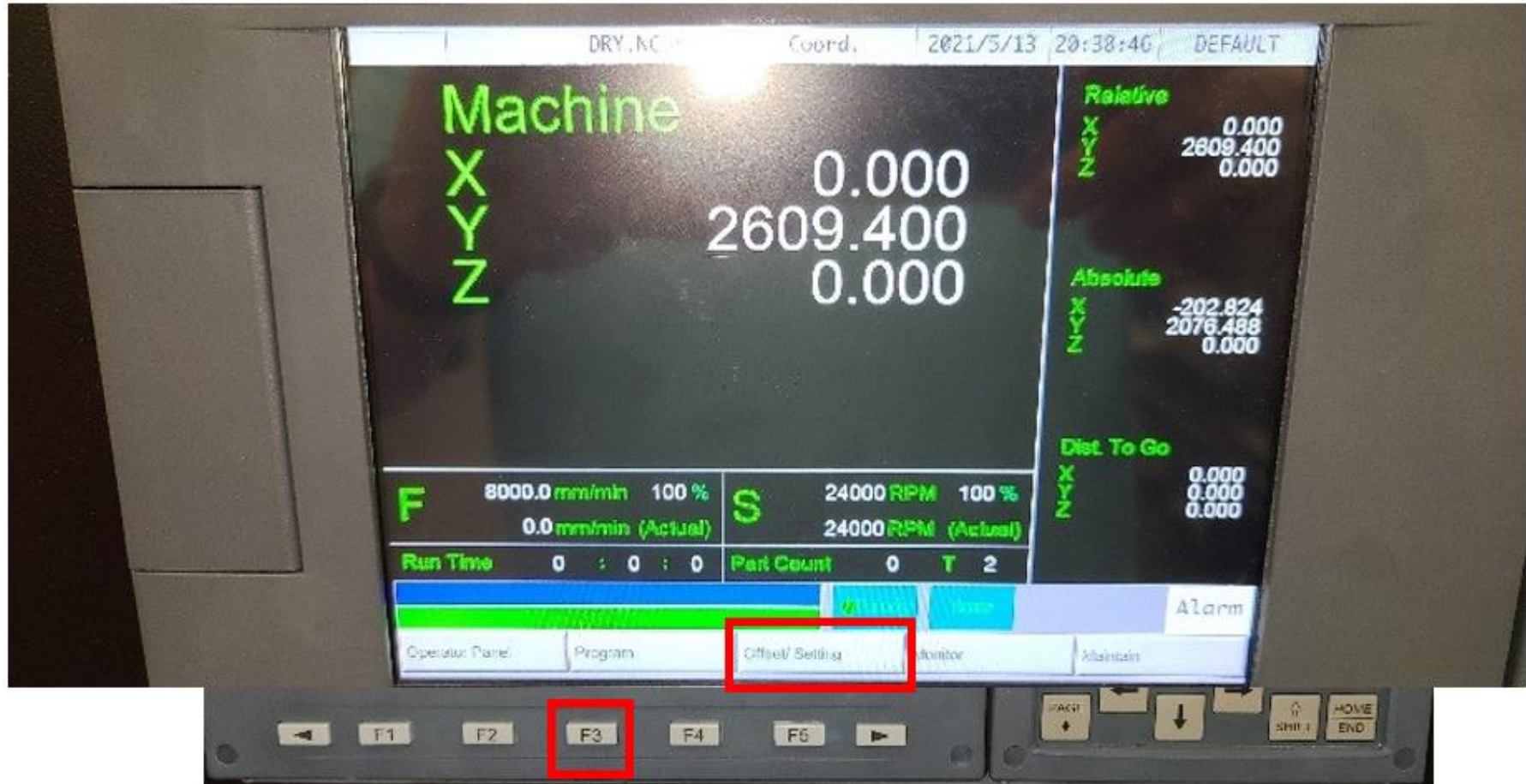


4.) Select “F1”-Copy File for Execution.

Machine Operation Instruction (Cont'd.)

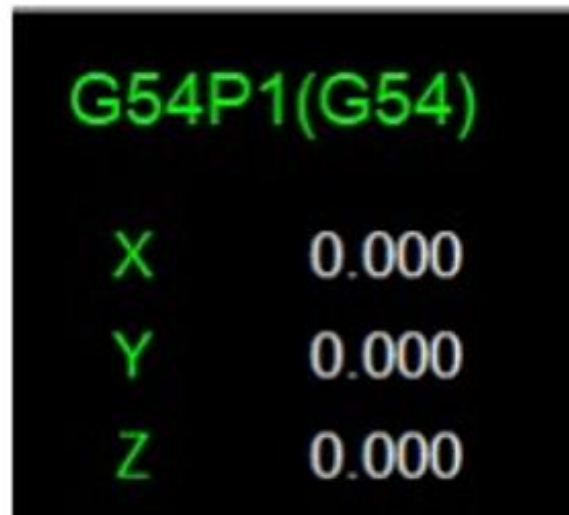
Job Origin Preset-

Click on the “**F3 OFFSET/SETTING**” softkey on the bottom menu of the main interface.



Machine Operation Instruction (Cont'd.)

And we use G54 as the "0" Point of Processing -



Press the "**Hand Wheel Mode**" to control and move the X/Y/Z axis to material processing surface, (For irregular materials, users need to set a center, and the workpiece origin should be benchmarked on the zero surface on which the tool is aligned with the workpiece).

The Setting "**G54**" needs to be set with the "**Drill Block**", not the "**Spindle**".

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

Date: 12/02/2020 **BILL OF LADING**

SHIP FROM

Name: **Bill of Lading Number : 145787446**
 Address:
 City/State/Zip: FOB:

SHIP TO

Name: .ocation#
 Address:
 City/State/Zip: FOB:

FREIGHT CHARGES BILL TO

Name:
 Address:
 City/State/Zip:

Carrier Name: **Estes Express**
 SCAC: EXLA
 Pro number:

Freight Charge Terms: (freight charges are prepaid by Worldwide Express unless indicated otherwise)

Master Bill of Lading with attached underlying Bill Of Lading

WWE Number: W709699351

SPECIAL INSTRUCTIONS: For assistance, please call 833-8WE-SHIP
 Handling Instructions: RMACR11096
 Pickup Instructions:
 Delivery Instructions: RMACR11096
 Pickup Service(s): Liftgate Pickup, Residential Pickup

REFERENCE NUMBER INFORMATION

REFERENCE	# PKGS	REFERENCE	# PKGS	Total # of Pkgs

CARRIER INFORMATION

HANDLING UNITS		PIECES		WEIGHT	H M X	COMMODITY DESCRIPTION <small>Commodities requiring special or additional care or attention in handling or stowing must be so marked and packaged to ensure safe transportation with ordinary care. See section 2(a) of NMFC Item 360</small>	LTL ONLY	
QTY	TYPE	QTY	TYPE				NMFC#	CLASS
1	PLT			385		machine, 48(L) x 48(W) x (H) DO NOT STACK		77.5
Grand Total				385				

Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of property as follows: The agreed or declared value of the property is specifically stated by the shipper to be not exceeding \$_____.

Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 U.S.C. B14706(c)(1)(A) and (B).

RECEIVED, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and Worldwide Express Operations, LLC, a registered motor carrier broker, pursuant to 49 USC 14101(b) and all applicable state and federal regulations.

SHIPPER'S SIGNATURE / DATE
 This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Trailer Loaded:
 By Shipper
 By Driver

Freight Counted:
 By Shipper
 By Driver/pallet said to contain
 By Driver/Pieces

Acceptable Forms of Payment:
 Bank Certified Check
 Customer Check
 Personal Check
 Money Order

COD Amount: \$
 Fee Terms: 3rd Party WWE
 Remit Address:

CARRIER SIGNATURE / PICKUP DATE
 Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and /or carrier has DOT emergency response guidebook or equivalent documentation in vehicle. Property described above is received in good order, except as noted.

(Signature) (Date)

Bill of Lading Number : 145787446

SPECIAL INSTRUCTIONS: For assistance, please call 833-8WE-SHIP
 Handling Instructions: RMACR11096
 Pickup Instructions:
 Delivery Instructions: RMACR11096
 Pickup Service(s): Liftgate Pickup, Residential Pickup

Laguna Tools Warranty-

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.

****NOTE: Issuing an RMA number is for referencing materials and issues, it does NOT indicate warranty acceptance/conformity.**

Laguna Tools 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.**

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 manufacturers' 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
1-800-332-4049
customerservice@lagunatools.com
www.lagunatools.com/why/customer-service/
8AM. to 5PM 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
1-949-474-1200
customerservice@lagunatools.com
www.lagunatools.com/policies/warranty
8AM to 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.

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 inadequate 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 1-949-474-1200. To receive customer service or technical support please contact the customer service department at 1-800-332-4094. 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.



Laguna Tools Warranty-

No Modifications Allowed or Sold.

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.

Laguna Tools Packaging/RMA Procedures-

Dealer Machinery Warranty

****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.**

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.

Laguna Tools Packaging/Laguna Tools RMA Example-

RMA #

RTN. AUTH. #
CR10979

12/1/2020 Return Authorization - NetSuite (Laguna Tools, Inc)

Return Authorization

CR10979 PENDING RECEIPT

Edit Back Receive Close Actions

CUSTOMER DATE CURRENCY SUBSIDIARY LOCATION Laguna Texas Demo / Returns SALES REP PARTNER LEAD SOURCE PO # PO-981 MEMO

CREATED FROM SALES EFFECTIVE DATE EST. EXTENDED COST EST. GROSS PROFIT EST. GROSS PROFIT PERCENT PROMISE DATE

Summary

SUBTOTAL DISCOUNT GST/HST PST TOTAL

RTN. AUTH. # CR10979

DEPARTMENT Sales

RETURN REASON Manufacturers Warranty Defect

SHIP IMMEDIATE SPLIT SHIP

REVISIED INVOICE ORDER HOLD REASON

SHIPPING COMMENTS

Items Promotions Address Messages History Workflow Custom Partners Sales Team Additional Information OzLINK Pacejet SPS

EXCHANGE RATE RATE

DISCOUNT

ITEM	RETURNED	REFUNDED	QUANTITY	UNITS	INVENTORY DETAIL	DESCRIPTION	PRICE LEVEL	UNIT PRICE	AMOUNT	TAX CODE	TAX RATE	PST	OPTIONS	GIFT CERTIFICATE	CLOSED	DROP SHIPMENT	CO: EST TYF
------	----------	----------	----------	-------	------------------	-------------	-------------	------------	--------	----------	----------	-----	---------	------------------	--------	---------------	-------------

Edit Back Receive Close Actions

Laguna Tools Packaging/Laguna Tools BILL of LADING Example-

SHIP FROM		SHIP TO		FREIGHT CHARGES BILL TO					
Name: Address: City/State/Zip:		Name: Address: City/State/Zip:		Name: Address: City/State/Zip:					
Bill of Lading Number : 145787446		Carrier Name: <u>Estes Express</u>		SCAC: <u>EXLA</u>					
FOB: <input type="checkbox"/>		Pro number:		Freight Charge Terms: (freight charges are prepaid by Worldwide Express unless indicated otherwise)					
Freight Charge Terms: (freight charges are prepaid by Worldwide Express unless indicated otherwise)		<input type="checkbox"/> Master Bill of Lading: with attached underlying Bill Of Lading		WWE Number: W709699351					
SPECIAL INSTRUCTIONS: For assistance, please call 833-8WE-SHIP Handling Instructions: RMACR11096 Pickup Instructions: Delivery Instructions: RMACR11096 Pickup Service(s): Liftgate Pickup, Residential Pickup									
REFERENCE NUMBER INFORMATION									
REFERENCE	# PKGS	REFERENCE	# PKGS	Total # of Pkgs					
CARRIER INFORMATION									
HANDLING UNITS		PIECES		WEIGHT	H.M. X	COMMODITY DESCRIPTION		LTL ONLY	
QTY	TYPE	QTY	TYPE			NMFC#	CLASS		
1	PLT			385		machine, 48(L) x 48(W) x (H) DO NOT STACK			77.5
1				385		Grand Total			
Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of property as follows: The agreed or declared value of the property is specifically stated by the shipper to be not exceeding _____ per _____				COO Amount: \$ Fee Terms: 3 rd Party WWE Remit Address:		Acceptable Forms of Payment: Bank Certified Check <input type="checkbox"/> Customer Check <input type="checkbox"/> Personal Check <input type="checkbox"/> Money Order <input type="checkbox"/>			
Note: Liability limitation for loss or damage in this shipment may be applicable. See 49 U.S.C. B14706(c)(1)(A) and (B)				CARRIER SIGNATURE / PICKUP DATE		Carrier acknowledges receipt of packages and required placards. Carrier certifies emergency response information was made available and /or carrier has DOT emergency response guidebook or equivalent documentation in vehicle. Property described above is received in good order, except as noted.			
SHIPPER'S SIGNATURE / DATE This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.		Trailer Loaded: <input type="checkbox"/> By Shipper <input type="checkbox"/> By Driver		Freight Counted: <input type="checkbox"/> By Shipper <input type="checkbox"/> By Driver/pallet said to contain <input type="checkbox"/> By Driver/Pieces		(Signature)		(Date)	

Bill of Lading Number : 145787446

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 Handling Instructions: RMACR11096
 Pickup Instructions:
 Delivery Instructions: RMACR11096
 Pickup Service(s): Liftgate Pickup, Residential Pickup

Maintenance

Performing regular maintenance will ensure optimal performance of the machine. Please follow these maintenance procedures.

Failure to follow maintenance procedures will void the warranty.

Table is based on 30 hours of use a week						
	Daily	Weekly	Monthly	Every Three Months	Every Six Months	Yearly
Check the tool blades for chips and dullness	X					
Remove all tooling from the spindle at the end of the day. Do not leave any tooling in the spindle overnight. This includes tool cones, collets, router bits, etc. Leaving any tooling in the spindle overnight can cause the tooling to get dirty, stuck, rust, and cause damage to the spindle.	X					
Clean the collets and spindle holes. Uncleaned spindle holes may affect cut quality and pose a safety hazard if significantly dirty. Uncleaned spindle holes may affect cut quality and may pose a safety hazard if significantly dirty.	X					
Clean the router bits	X					
Clean surface dust	X					
Clean the x and y-axis rack rails and the z-axis screw guides		X				
Check the dust extraction for blockages, as large pieces could cause blockages		X				
Inspect the overall machine for damage and loose or worn parts.	X	X	X	X		
Check lubrication level and fill with 10wt oil lubricant if necessary		X				
Disconnect power at the wall and clean the dust from the cabinet and fan covers			X			

