



VEA1

VARIABLE SPEED VERTICAL EDGER

OPERATION AND MAINTENANCE MANUAL

(November 2012)



C. R. Laurence Company
crlaurence.com | World Supplier

VEA1



5501 West Ogden Avenue Cicero, Illinois 60804-3507 USA
 Toll Free (866) 583-1377 International (733) 242-2871

CRL VEA1 HEAVY DUTY SINGLE SPINDLE EDGER

- Edges Glass From 1/8" to 1/2" (3 to 12 mm) Thick
- Process Glass Up to 100" (2540 mm) Per Minute
- Recirculating Coolant Eliminates Glass Dust
- Same Heavy Duty Glass Gripper Conveyor as the VE2PLUS2



CAT. NO. VEA1

3-Phase, 220 V AC Operation Processes Glass at 100 Inches Per Minute

The CRL heavy duty VEA1 allows you to process glass 51% faster than the VE1P. The VEA1 uses the same heavy duty glass gripper system as the larger VE2PLUS2, 2-Spindle Edger. A steel coolant tank and a more powerful pump are included. The operator simply pushes the glass into the flexible gripper conveyor and it is smoothly pulled over the wheel. A digital ammeter easily lets you monitor the wheel pressure against the glass. With the VEA1 you can process glass from 1/8" to 1/2" thick at up to 100" per minute. Pencil edges, miter and flat and seam are all possible.

Controls

All controls are built to OSHA requirements, utilizing CE, CSA & UL Certified components. Wiring for three phase, 60 cycle, 208/230V AC power. Available configured for Single Phase, 220V AC, 50/60 hertz operation.

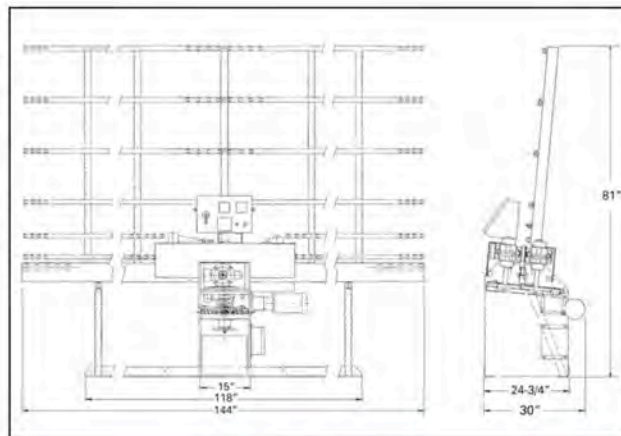
Wheels (Included)

- Diamond Wheel One 7" x 1/8" - 1/4" Flat and Seam Diamond Wheel (178 mm x 3 mm to 6mm)
- Polish Wheel One 7-1/4" x 3/4" Somaca Orange Wheel (184 mm x 19 mm)

Utilities

- Electrical Three Motors, Total 3.8 HP (2.8 kw).
- Voltage 3 Phase, 60 Cycle, 208/230V AC. (1/50-60hz, 220V AC available)
- Power 15amps @ 230V AC

- Minimum Glass Size:4" x 4.5" (102 x 114.3 mm)
- Shipping Weight:1500 lbs. (680 kg)
- Conveyor Height:28-1/2" (724 mm)



Elevation and Side View of VEA1

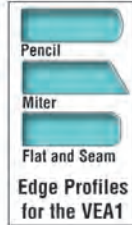
C.R. LAURENCE CO., INC. an ISO9001:2000 Certified Company crlaurence.com somaca.com

SOMACA/CRL VEA1 Heavy Duty Automatic Glass Edger Features

Variable Speed Glass Conveyor



Heavy Duty Conveyor safely pulls the glass through at the desired speed. The operator only needs to push the glass into the Conveyor, the Edger does the rest.



Edge Profiles for the VEA1



CAT. NO. VEA1

CAT. NO.	DESCRIPTION
VEA1	SOMACA/CRL HEAVY DUTY SINGLE SPINDLE EDGER (3 phase/220V AC)
41993000	Converter for Single Phase, 60 Cycle/220V AC

SOMACA/CRL VEA1 Heavy Duty Automatic Glass Edger Parts

Conveyor Pads

These front and rear pads replace the ones on the machine perfectly and hold the glass firmly.

CAT. NO.	DESCRIPTION
38864200	Front Conveyor Pad
38864100	Rear Conveyor Pad

Minimum order is one each.



Conveyor Roller and Shoulder Screw

These are the rubber Rollers that support the glass as it enters and exits the Edger.

CAT. NO.	DESCRIPTION
16300160	Conveyor Roller
36988804	Roller Shoulder Screw

Minimum order is one each.



Coolant Pump

This is the original heavy duty pump that is used in the VEA1.

CAT. NO.	DESCRIPTION
42505610	Pump

Minimum order is one each.



Rack Rail Roller and Pin - 7/8" OD

These parts replace the Rollers that are in each back rail. If you are missing more than a few, get some replacements to keep your glass rolling.

CAT. NO.	DESCRIPTION
4630007401	7/8" OD Rack Rail Roller
4630007402	Rack Rail Roller Axle

Minimum order is one each.



Call the Machinery Division at (866) 583-1377 for help with ordering parts for any SOMACA/CRL machine.

SOMACA/CRL EDGER WHEELS

Diamond Pencil Edge Wheels

7" (178 mm) diameter Diamond Wheel for pencil edge profiling. 140-170 grit.

CAT. NO.	APPLICATION
36443205	For 1/8" to 1/4" (3 to 6 mm) glass
36881001	For 3/16" to 3/8" (5 to 10 mm) glass
38404901	For 1/4" to 1/2" (6 to 12 mm) glass

Minimum order is one each.



Diamond Flat and Seam Wheels

7" (178 mm) diameter Diamond Wheel for Flat and Seam profiling. 140-170 grit.

CAT. NO.	APPLICATION
38533500	For 1/8" to 1/4" (3 to 6 mm) glass
38386901	For 3/16" to 3/8" (5 to 10 mm) glass
38517503	For 1/4" to 1/2" (6 to 12 mm) glass

Minimum order is one each.



SOMACA/CRL EDGER WHEELS AND PARTS

Orange Polish Wheels

For 1/8" to 1/2" (3 to 12 mm) glass. 8" diameter x 3/4" (203mm x 19 mm) thick. Always use the original Orange Wheel for best results. A Double-Wide (1-3/16" thick) polish wheel is also available.

CAT. NO.	APPLICATION
39579901	8" For 1/8" to 1/2" (3 to 12mm) glass
39579902	8" DW For 1/8" to 1/2" (3 to 12mm) glass

Minimum order is one each.



Diamond 30 Degree Miter Wheel

7" (178 mm) diameter Diamond Wheel for 30 degree miter profiling. 140 grit.

CAT. NO.	APPLICATION
38677802	For 1/8" to 1/2" (3 to 12 mm) glass

Minimum order is one each.



SECTION 1

SAFETY

FAILURE TO OBSERVE THE WARNING, CAUTIONS, AND INSTRUCTIONS LISTED IN THIS MANUAL AND ON THE DECALS ATTACHED TO THE VERTICAL EDGER COULD CAUSE SERIOUS INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT.

I. GENERAL SAFETY INFORMATION

A. Introduction

This manual contains installation instructions and operating and maintenance procedures for the VE-A-1 Vertical Edger. The edger must be operated and maintained at all times in accordance with the instructions and procedures contained in this manual and on the decals attached to the edger. Only qualified personnel thoroughly familiar with the operating and maintenance should operate and maintain this equipment.

B. Safe Operating Considerations

Safety must be observed through all facets of operation and maintenance. Proper tools and operating procedures must be used at all times to prevent accidents, which could cause injury to personnel or damage to equipment.

Safe reliable operation and long service life are dependent upon three important considerations:

1. Care exercised during installation.
2. Quality and frequency of inspection and maintenance.
3. Common sense approach to operation.

II. NOTES, CAUTIONS, AND WARNINGS

A. NOTES

NOTES

The notes contained throughout this manual provide additional information to carry out the operating and maintenance procedures. Any particular note is listed just prior to the procedural step to which it applies. This is an example of their format.

SECTION 1 (continued)

B. CAUTIONS**CAUTION**

The cautions in this manual contain instructions and information concerning operation and maintenance procedures which if not followed could cause damage to equipment, parts, and facilities. Like notes, cautions are listed just prior to the steps to which they apply. This is an example of their format.

C. WARNINGS**WARNING**

The warning in this manual contain instructions and information concerning operation and maintenance procedures which if not followed could cause injury to personnel. Warnings also are listed just prior to the steps to which they apply. This is an example of their format.

III. GENERAL PRECAUTIONS

The precautions listed here are general in nature, failure to observe and follow them could result in personal injury or damage to property. These general precautions are not all inclusive. Specific cautions and warnings are listed throughout this manual, and additional ones may occur to the user which are peculiar to a particular operation or industry. In addition, employers are subject to the Federal Occupational Safety and Health Act (OSHA) of 1970, as amended, which requires that an employer keep abreast of the myriad regulations which will continue to be issued under its authority.

1. **Always** operate and maintain the edger in accordance with the instructions and procedures in this manual.
2. **Do not** exceed the capacity of the edger.
3. **Do not** open inspection doors while unit is in operation except in special circumstances which are addressed later in this manual.
4. **Never** work on the edger and related components unless electrical power and motor drive has been locked out and tagged.

SECTION 1 (continued)

5. **Do not** use edger for any purpose for which it was not designed. It is to be used solely to edge glass within the specification limits listed in this manual.
6. **Do not** poke or prod into the openings of the edger with a bar or stick.
7. **Always** have a clear view of the loading and unloading points and all safety devices of the edger.
8. Keep area around edger, drive, and control station free of debris and obstacles.
9. **Never** operate edger without guards and all safety devices in position and functioning.
10. **Always** allow edger to stop naturally. **Do not** attempt to artificially brake or slow the motion of the edger.
11. **Always** wear safety glasses, proper gloves, and other necessary safety equipment while operating and maintaining the edger. When in doubt, consult with shop safety representative.

SECTION 2

I. DESCRIPTION

The VEA1 Vertical Edger Manual (hereinafter referred to as the edger) was designed to fill the need for a compact production machine to edge the most common range of glass thicknesses and sizes. The edger is ruggedly constructed, easy to operate and maintain, and produces quality edges. The edger consists of a frame with grinding (polishing) compartment, grinding (polishing) wheel and drive motor, conveyor system, glass support frame, coolant tank and pump.

The edger uses one diamond grinding wheel seven inches in diameter. For a higher luster finish after diamond grinding, a special polishing wheel rated for 3450-RPM can be interchanged with the diamond wheel. The edger will grind (and polish) edges of glass from a minimum thickness of 1/8" to a maximum thickness of 1/2". Wheels can be supplied to provide a pencil, flat-seamed or any special edge desired. The wheel is driven by a motor equipped with height adjustment for setting wheel depth, front-to-back adjustment for centering the wheel on the glass, and angular adjustment to pitch the wheel with respect to glass travel.

While in operation, the wheel is cooled with a diamond wheel coolant which is recirculated by a coolant pump. The purpose of the coolant pump and coolant tank is to supply a constant flow of diamond wheel coolant free of large glass grinds to the grinding (or polishing) wheel while the edger is in operation. The immersion pump supplies the coolant to the wheel, the coolant then flows into the tank where most of the ground glass residue settles out, then into the pump reservoir section of the tank for recirculation.

The conveyor system is driven by a variable speed DC motor to a gearbox and gears that drive the conveyor chains. All gears are synchronized so that the conveyor chains move at the same speed.

The glass support frame supports the glass as it is conveyed through the grinding (or polishing) operations. The frame can handle glass from a minimum size of 3-1/2 inches wide by 12 inches long to a maximum of 72 inches by 72 inches. Maximum glass weight is 250 pounds and the maximum glass thickness is 1/2 inch. The uprights support the five rows of roller bars.

SECTION 2 (continued)

II. SPECIFICATIONS

GLASS CAPACITY

- Thickness..... Single strength 1/8" to 1/2".**
- Length:.....4.5" minimum**
- Height:.....4.5" minimum**
- Weight:.....250 pounds maximum.**
- Spindle Motor:.....3-HP, 3600-RPM motor, with 7" diamond grinding wheel.**

Wheel has adjustments for height to set wheel depth, angularity for glass thickness, In/Out for wheel centering on the glass and can be profiled for pencil or flat-seamed edges.

- Spindle Load..... Ammeter indicates load on wheel**
- Electrical:..... 3-Phase, 60-HZ, 230 Volt (Std.)**
3-Phase, 60-HZ, 460 Volt (Opt.)
1-Phase, 60HZ, 230 Volt (Opt.)
- Plumbing:.....No direct hookup required.**
- Weight:.....Approximately 1100 pounds.**

SECTION 3

RECEIVING

I. UNCRATING

Before the edger was crated for shipment, it has undergone successful test operation and was in proper working condition. Therefore, proper uncrating and receiving inspection is of utmost importance to assure that the edger was received in exactly the same condition as when it left the factory. The edger is shipped in one large crate.

WARNING

The crate containing the edger weighs approximately 1500 lbs. Use adequate lifting devices to move the crate and avoid damage to the machine.

A. INSPECTING THE CRATE:

Crate damage could indicate mishandling during shipment and the edger could possibly be damaged. Inspecting the crate for exterior damage is an important part of the uncrating procedure. Inspect the exterior of the crate as follows:

1. Check all surfaces of the crate for gouges, tears or holes that could have been caused by the tines of a fork-lift or other lifting device.
2. Check for crushed corners and edges that could indicate that crate was dropped.
3. Check for broken support straps that position the edger and coolant tank on the mounting skid.

B. REMOVING THE CRATE:

1. Check all surfaces of the crate for gouges, tears or holes that could have been caused by the tines of a fork-lift or other lifting device.
1. Remove top and side of crate. A claw hammer and pry bar are suitable tools for this operation. Remove the protective plastic wrap covering the edger.
2. The edger is securely bolted and strapped to the main mounting skid, remove bolts and strapping.

SECTION 3 (continued)

NOTE

Small parts and accessories may be found wrapped and placed in the coolant tank, or boxed and attached to the mounting skid.

3. Check the entire edger for damage, especially in the area of any crate damage as aforementioned.
4. Using a proper lifting device and lifting slings, remove the mounting skid from beneath the edger and place in position.

II. NOTIFICATION

Document all damage to the edger and components, if any, and notify the carrier and the Glass, Machinery Division of C R Laurence Company.

SECTION 4 **INSTALLATION**

I. FACILITIES REQUIREMENTS

A. SPACE:

The required area to operate the edger is 11 feet wide, 3 feet deep and 7 feet high. The floor area should also be clean and free of oil, grease, and water.

B. PLUMBING:

Although the edger requires no direct hookup, a water supply and drain should be easily accessible for filling, cleaning and draining the coolant tank and pump. Ideally, a floor drain should be located very close to the edger for run-off and cleaning.

C. ELECTRICAL REQUIREMENTS

WARNING

Make sure all electrical connections and service lines DO NOT contact water.

The power source must also have a safety disconnect switch for servicing the edger. Local electrical codes may require this switch. All wiring must meet local electrical codes.

II. ASSEMBLY INSTRUCTIONS

The edger and glass support frame are shipped fully assembled. The following will be all that is necessary to set-up the edger for production.

1. Set machine on leveling pads provided. Using the leveling screws raise machine approximately 1/2" off of leveling pads. The (4) outboard leveling screws should not be touching leveling pads. Remove rear guard and place a level lengthwise on rear tube. Using the (4) inboard leveling screws level the edger from side to side. Recheck the side-to-side level. Once edger is set, turn (4) outboard screws until they just touch leveling pads. Tighten all jam nuts on leveling screws being careful not to put machine out of level.
2. Position coolant tank on side of edger. Under load conveyor connect coolant hose & return hose from coolant pan on edger. Mount the two glass rack sections to the machine frame along with the center support post.

SECTION 4 (continued)

3. Normally, mix 1 pack of SOMACA dry diamond wheel coolant (Somaca P/N 2651005, or equivalent) to 100 gallons of water or as Recommended, to fill coolant tank. For mixing purposes, approximate capacity of the coolant tank is 13 gallons. Use approximately 1.0 oz of dry coolant with this tank.

NOTE

Sometimes the coolant and water mixture may foam excessively, thus requiring sparing use of an anti-foaming agent (Cat No. 2651802).

III. TEST OPERATION AND WHEEL ADJUSTMENT**A. COOLANT PUMP**

Turn the pump switch on Observe that coolant is flowing to grinding wheel and is spraying at the point at which the wheel touches the glass and returns into the tank.

B. ADJUSTMENT OF GRINDING (POLISHING) WHEEL**WARNING**

When the edger is used for a polishing operation, it is mandatory to use a special polishing wheel designed to operate at 3600 RPM Or faster. SOMACA No. 39666000 or equivalent is recommended.

Three adjustments must be made on the grinding(polishing) wheel prior to starting. One adjustment is for pivoting the wheel to the glass travel, the second is for vertical height which controls the amount of glass that is ground off, and the third is to center the wheel on the glass. The wheel is pivoted to allow the use of a wide profile wheel on a thinner piece of glass

The following table gives some typical angles to Turn the wheel. Every example mentioned and individual preference should dictate actual angles as well as all wheels are different and resultant edge profiles are a matter of user preference.

SECTION 4 (continued)

WHEEL PROFILE	1/2"	3/8"	1/4"	3/16"	1/8"
1/2 F.S.	0°	4° - 8°	8° - 15°	N.R.	N.R.
1/2 P.E.	0°	0° - 5°	5° - 8°	8° - 11°	11° - 15°
3/8 F.S.	N.R.	0°	4° - 8°	6° - 10°	8° - 15°
3/8 P.E.	N.R.	0°	0° - 5°	5° - 8°	8° - 11°
1/4 F.S.	N.R.	N.R.	0°	4° - 8°	6° - 10°
1/4 P.E.	N.R.	N.R.	0°	0° - 5°	5° - 8°

N.R. = Not Recommended

WARNING

Make sure the spindle motor switch is off before adjusting wheel.

1. Loosen the angle adjustment screw on the angle adjustment plate. Pivot the spindle motor manually to the desired angle by use of the angle index scale on the front of the adjustment plate. Tighten screw securely.
2. Turn the vertical adjustment handwheel counter clockwise until grinding wheel is approximately 1/2" below the top of the grinding compartment.
3. Turn on conveyor, pump & spindle motor switch, and the conveyor "Forward" toggle switch. Note, the grinding wheel is rotating counter clockwise when facing the front of the edger.
- 4.

WARNING

Before proceeding with the following steps, make certain that the conveyor is operating properly. Look ahead to "IV. CONVEYOR" and perform all steps as outlined before any operation with glass.

SECTION 4 (continued)

5. Run a piece of glass of thickness suitable for the wheel size and set up into the edger. Stop conveyor the using toggle switch when glass is above grinding wheel.
6. Turn the vertical adjustment handwheel clockwise to raise the grinding (polishing) wheel until it just contacts the glass. Then turn the vertical adjustment handle 1/2 turn counter clockwise so that the wheel is no longer contacting the glass.
7. Reverse conveyor and move glass out of edger.
8. Turn the vertical adjustment handwheel clockwise and adjust height of grinding wheel to grind off approximately 0.032" of glass. Note, each clockwise turn of handwheel move spindle .063" UP. Lock adjustment handle in position using the jam nut. In determining the proper depth being ground a depth gauge should be used.
9. Run the test glass completely through the edger so that the edge is ground. Examine the ground edge to make sure that the glass is striking the wheel at the center of the groove.
10. If the glass is not striking the center of the groove use the horizontal adjustment plate to center the wheel on glass. To move this plate rotate handwheel clockwise to move wheel forward & CCW to move wheel back.
11. After adjustments have been made double check that all screws and nuts for each adjustment are tightened.
12. Run the test glass completely through the edger so that it is ground. Make any additional adjustments in wheel height and groove centering so that a minimum amount of glass is removed and that the desired edge is attained. At the same time check the alignment of the "Infeed to Center Section to Outfeed" the glass should both enter and exit straight and not ride up or down during grinding. The amount of glass ground off should be constant from end to end.
13. If the edger is to be used for polishing, remove the grinding wheel, install appropriate polishing wheel(see "WARNING" at the beginning of this section) and repeat steps 4 through 10 to adjust polishing wheel.

SECTION 4 (continued)

NOTE

If a new polishing wheel is installed and is not dressed for thickness of glass and profile of edge, refer to Section 6 for dressing procedure.

IV. CONVEYOR

The conveyor system will not run unless the coolant pump and the grinding (polishing) motor are turned on.

1. Turn on the coolant pump and the grinding (polishing) motor. Place Forward/Off/Reverse toggle switch in the "FORWARD" position.
2. Observe that the conveyor chains are moving counter clockwise (when facing the front of the edger).
3. Place the Forward/Off/Reverse toggle switch in the "REVERSE" position. Observe that the conveyor chains reverses the direction of travel as noted in step 2.
4. Place Forward/Off/Reverse toggle switch in FORWARD position and turn on the coolant pump and grinding (polishing) motor. By turning the conveyor speed adjuster on the control panel, you can vary the glass feed rate from 0 to 100 inches/min. Certain conditions, such as a better polish, may require a slower feed rate.

SECTION 5

OPERATING INSTRUCTIONS

I. GRINDING INFORMATION

It may be necessary to run the glass through the edger more than once. The number of "PASSES" through the edger for grinding a specific edge is dependent upon four factors:

- a. Grit and type of the grinding wheel.
- b. Depth of grind.
- c. Smoothness of finished edge.
- d. Straightness of rough cut-flares.

Multiple "PASSES" may also indicate that the diamond wheel may have loaded up with glass grinds, glazed over, or wore the diamond below the surface of the bonding material. See the "Maintenance" section.

Grit of the diamond wheel is very important to the ease of the grinding. The coarser the grit, the easier the wheel will edge, but coarse grit wheels will leave rough edges with chips. Conversely, fine grit wheels make a smooth cut, and do not remove as much glass per pass.

The amount of glass that must be removed is another important consideration. For the longest wheel life, the smallest amount of glass possible should be removed with more passes or a slower conveyor speed through the edger. The cut of glass edge that is to be ground determines amount of glass to be removed. If the cut edges are straight without flares or protrusions, then the amount necessary to be removed is minimal. If the cut edges are jagged and uneven, then a greater amount of glass will have to be removed.

The correct amount of passes or conveyor speed and depth of cut to achieve the desired edge will have to be determined for each thickness of glass through experimentation. The combination that give the desired results should be documented so that the procedure can be duplicated at a later date.

III. OPERATION

A. ADJUSTMENTS:

1. Set grinding (or polishing) wheel to the proper setting for thickness of glass to be ground. See adjustment of grinding (polishing) wheel in Section 4.
2. Adjust height of wheel for desired depth of cut. (see Section 4)

SECTION 5 (continued)

B. EDGER START-UP

1. Turn Edge Grind switch to "ON".
2. Place conveyor switch in "Forward" and turn coolant pump switch "ON" position. Note, the coolant is streaming directly on the wheel.
3. Make sure conveyor drive rocker switch is in forward position.

CAUTION

Do not run glass through the edger unless coolant is flowing to the wheel at the point where the wheel contacts the glass. If a diamond wheel is run dry, the heat generated may break the glass and damage the wheel.

CAUTION

Never exceed glass capacity of the edger as listed in the specification in Section 2.

4. Load glass onto infeed rack (left side when facing front of edger) and hand convey the glass until it reaches the conveyor belt pad. The front pressure conveyor and rear conveyor will grip the glass and begin the normal operation.

C. CONVEYOR ADJUSTMENT

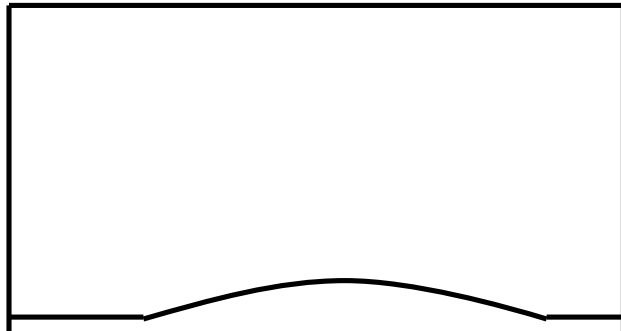
To adjust ingoing & outgoing conveyors, remove guards and loosen 3/8 hex head bolt located just above adjusting screw. Loosen jam nut on adjusting screw and turn adjusting screw to desired position. Do not adjust the eccentrics near the base of the machine. These are factory set. Once conveyors are adjusted reverse procedure. Next, run a piece of glass at least 72 inches long through the edger and listen to the cut. If the sound becomes quieter toward the end of the cut lower the ingoing conveyor 1/2 turn (adjustment screw) and raise the outgoing conveyor 1/2 turn (adjustment screw).

SECTION 5 (continued)

Based on the finished edge produced at this point, it is now a matter of fine tuning.

Example:

TRAVEL 



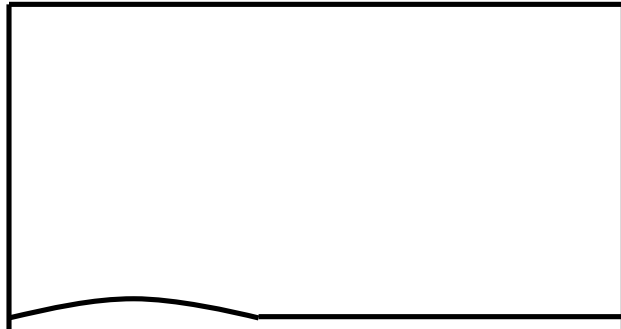
To change this condition, the ingoing conveyor Adjustment must be raised 1/2 turn and the Outgoing conveyor must be raised 1/2 turn.

TRAVEL 



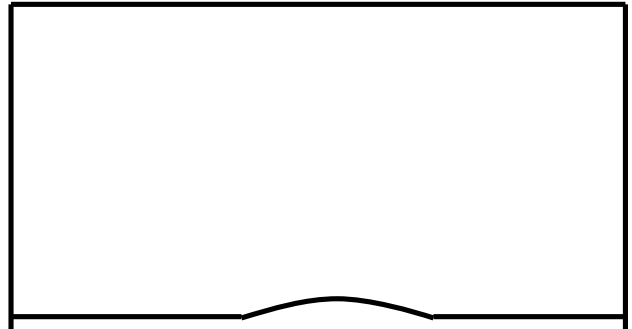
To change this condition, the outgoing conveyor adjustment must be lowered 1/8 turn and the Ingoing conveyor must not be adjusted.

TRAVEL 



To change this condition, the ingoing conveyor Adjustment must be lowered 1/8 turn and the outgoing conveyor must not be adjusted.

TRAVEL 



This will move to the left depending on the conveyor is being adjustment. To eliminate This condition, adjust both conveyors up 1/8 turn.

SECTION 6

MAINTENANCE INSTRUCTIONS

WARNING

Disconnect main power to the edger before performing any maintenance. Failure to do so could result in serious injury or death.

I. SPINDLE MOTOR

1. To replace the spindle motor shut off main power to the edger and disconnect wiring.
2. Remove the four screws and washers that attach the wheel to the motor spindle. Remove the spindle bolt. Remove the spindle using a suitable wheel puller. Remove motor slinger and rubber curtain assembly.
3. Remove the four hex head screws and washers that secure the motor to the base plate.
4. Install new motor by reversing this procedure.

II. COOLANT SYSTEM

Every 8 hours of operation.

1. Drain and clean coolant tank and pump (see ADDENDUM, PUMP MAINTENANCE, page 25).
2. Flush lines and coolant pan in center section below the grinding (polishing) wheel.
3. After cleaning tank, refill with a mixture of 1 pack of SOMACA dry diamond wheel coolant (Somaca P/N 2651005, or equivalent) to 100 gallons of water or as Recommended, to fill coolant tank. For mixing purposes, approximate capacity of the coolant tank is 13 gallons. Use approximately 1.0 oz of dry coolant with this tank. The coolant concentrate improves finish of the grinding (& polishing) operation and inhibits rust formation on parts of the edger.

SECTION 6 (continued)

NOTE

If using a polishing wheel, some wheels do not polish very well with high coolant concentrations. Coolant concentration may be reduced as necessary depending on the wheel manufacturer's recommendations.

4. When the spray guard brushes are dry, clean buildup of glass grind from the brushes by running a long thin object back and forth between the bristles. The brush also can be removed for more thorough cleaning, or replacement, by removing the two screws in the brush mounting bracket.

III. GRINDING AND POLISHING WHEELS**A. DIAMOND GRINDING WHEEL**

Diamond wheels, depending on manufacturer and base metal bond, vary considerably in service life one half million to over one and one half million linear inches. But they require periodic dressing. The groove in the wheel must be dressed according to the following procedure.

1. Remove front window to expose the diamond wheel.

WARNING

Be extremely careful while performing the dressing operation as directed in step 3.

2. **The coolant pump must be "OFF" whenever dressing grinding or polishing wheels.**
3. Turn the diamond wheel motor ON until it reaches full operating speed and then **turn it OFF**. Quickly apply a SOMACA #46205880 dressing stone or equivalent, soaked in diamond wheel coolant solution or water to the wheel groove rocking it back and forth while pressing very hard as the wheel coasts to a stop. While holding the stone in the groove, apply pressure, and rotate the wheel by hand in the opposite direction four (4) or five (5) revolutions so as to attain proper diamond exposure.

SECTION 6 (continued)

NOTE

Wheel dressing must be performed with the coolant pump "OFF", with the dressing stone thoroughly wetted.

4. Repeat Step 3 several times then run a sample piece of glass.

B. POLISHING WHEEL

When the edger is used for polishing the edge of the glass, it is mandatory to use a special polishing wheel designed for a high RPM application. The polishing wheel has a short service life and must be grooved to the contour of the glass edge that is produced by the diamond wheel. This can be done by two methods. The first is to run glass through the edger while adjusting the (polishing) wheel until the entire glass edge is polished, repeating with as many passes as necessary.

CAUTION

Never exceed the maximum RPM on the polishing wheel. Inspect the wheel before mounting and using. If damaged, discard the wheel.

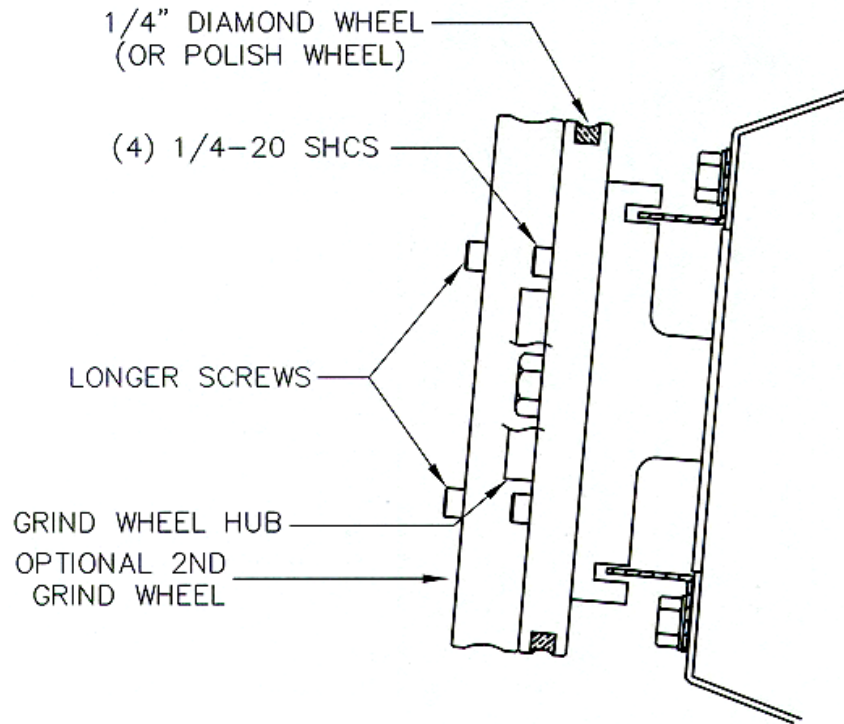
The second method is to run a dressing board through the edger as you would a piece of glass. The board is ground to shape by the diamond wheel. Remove the grinding wheel and install the polishing wheel. Then run the dressing board over the polishing wheel. This must be done a few times while adjusting the (polishing) spindle up to ensure that an adequate groove is produced on the polishing wheel.

In both methods turn the coolant pump ON to start flow of coolant to the wheel. Press the spindle motor start button to start the operation of the wheel. Turn the conveyor ON-FORWARD.

IV. MOUNTING DIAMOND/POLISHING WHEELS

1. Clean surface of grind wheel hub where wheel will contact hub.
2. Clean in side diameter of wheel and lightly grease with lubricant provided (NOTE: polishing wheel does not require lubricant).

SECTION 6 (continued)



3. Slip wheel on hub aligning mounting holes in wheel with tapped holes in hub (slip allen wrench thru holes to aid in alignment). Do not pound on wheel. If necessary use long 1/4-20 SHCS to draw wheels on to hub tightening each screw 1/4 thru at a time.
4. Install lockwashers and socket head cap screw and tighten. Use 1" long screws when mounting 1/4" glass wheel only. If mounting two wheels use longer screws.
5. When mounting two diamond wheels always mount 1/4" glass wheel first. If mounting a polishing and a grind wheel, mount polishing wheel first.

DIAMOND WHEEL ONLY:

Thread (2) 1/4-20 x 1/2" long hex head cap screw into two tapped holes on diamond wheel. These two holes are used as jack screw holes for removing the wheel. The screws keep residue out of the threads.

SECTION 7

TROUBLE SHOOTING PROCEDURES

PROBLEM	POSSIBLE SOLUTION
Glass rides up in grinding compartments	<ul style="list-style-type: none"> • Check the coolant. • Dress the diamond wheel. • Check the infeed & outfeed levelness. • Check for glass interference with the outfeed rollers • Interference of glass with glass racks or rollers. • Decrease depth of cut.
Choppy edge	<ul style="list-style-type: none"> • Check the coolant. • Check the glass for interference with infeed rollers. • Redress diamond wheel. • Check motor mounting & adjusting screws for tightness • Retrue diamond wheel.
Chipped edge or starred edge	<ul style="list-style-type: none"> • Check the coolant. • Is the wheel suitable for the glass thickness? • The wheel is turned to far and the steel is contacting the glass. • The wheel is worn out. • Try a finer wheel grit. • Run the wheel straight on.
Glass drops in conveyor section	<ul style="list-style-type: none"> • Check the infeed & outfeed for levelness • Glass hitting outfeed

2 POSITION WHEEL STOP

When mounting 2 wheels on spindle motor this will make switching from one wheel to the other less time consuming.

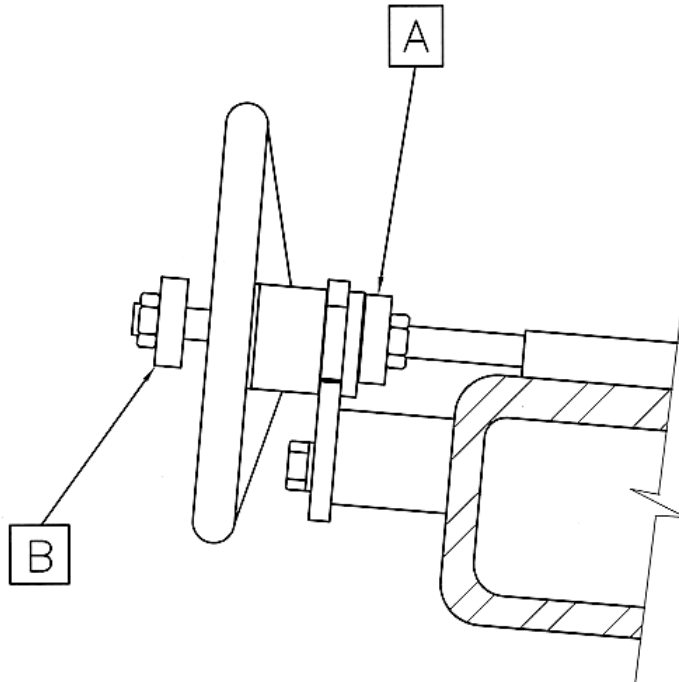
Once you have set-up the machine to run the wheel closest to the spindle motor, adjust clamp collar "A" against handwheel.

When machine is set-up to run wheel closest to operator, adjust clamp collar "B" against the handwheel.

These stops will now allow you to switch between wheels with minimal effort. Just turn handwheel until it bottoms against the proper clamp collar.

Always check the edge of the first piece of glass after making an adjustment.

When using 2 wheels, always mount the 1/4" glass wheel first (closest to spindle motor). This will make changeovers easier.



TERMS AND CONDITIONS MACHINERY WARRANTY STATEMENT

C.R. LAURENCE CO., INC. ("SELLER") WARRANTS PRODUCTS OF ITS MANUFACTURE TO BE FREE FROM DEFECTS IN MATERIALS OR WORKMANSHIP IN NORMAL USE FOR (12) MONTHS FROM THE DATE OF SHIPMENT (UNLESS A SHORTER PERIOD IS PROVIDED ELSEWHERE IN THIS DOCUMENT).

SELLER'S OBLIGATION AND BUYER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO REPAIR OR REPLACEMENT, AT SELLER'S SOLE OPTION, OF DEFECTIVE PARTS WITHIN THE WARRANTY PERIOD, PROVIDED BUYER GIVES SELLER IMMEDIATE WRITTEN NOTICE OF SUCH ALLEGED DEFECTS, AND, IF REQUESTED BY SELLER, RETURNS THE DEFECTIVE PARTS TO SELLER'S FACTORY PREPAID BY BUYER FOR SELLER'S INSPECTION. THE WARRANTIES CONTAINED HEREIN ARE IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. SELLER SHALL IN NO EVENT BE LIABLE FOR CONSEQUENTIAL DAMAGES. WARRANTIES HEREUNDER SHALL NOT APPLY TO ANY EQUIPMENT THAT HAS BEEN DAMAGED BY MISUSE, NEGLIGENCE, ACCIDENT, OR FAILURE TO PERFORM MAINTENANCE. THIS WARRANTY SHALL BE NULL AND VOID (1) IF THE MACHINE IS USED IN A MANNER CONTRARY TO INSTRUCTIONS OR AFTER MALFUNCTION IS NOTICED; (2) IF THE BUYER DOES NOT HONOR TERMS OF PAYMENT; (3) IF THE MACHINE IS MODIFIED OR ALTERED.

EQUIPMENT RESOLD BY SELLER

IN THE CASE OF EQUIPMENT FURNISHED BY SELLER BUT NOT OF SELLER'S MANUFACTURE, SELLER'S LIABILITY TO BUYER HEREUNDER IS LIMITED TO SUCH WARRANTY AS THE MANUFACTURER MAKES TO SELLER, BUT IN NO CASE GREATER THAN (12) MONTHS FROM DATE OF SHIPMENT BY SELLER.

LIMITATION OF LIABILITY

SELLER'S SOLE REMEDY SHALL BE REPAIR OR REPLACEMENT OF DEFECTIVE PRODUCT. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY OTHER REMEDY (INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR LOST PROFITS, LOST SALES, INJURY TO PERSONS OR PROPERTY OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS) OR PUNITIVE DAMAGES.

DISPUTE RESOLUTION

ANY DISPUTE BETWEEN THE CUSTOMER AND SELLER SHALL BE SETTLED BY ARBITRATION BETWEEN THE PARTIES, UNDER THE RULES OF THE AMERICAN ARBITRATION ASSOCIATION, CHICAGO, IL. SUCH ARBITRATION SHALL TAKE PLACE IN CHICAGO, IL, USA WITHIN 90 DAYS AFTER A REQUEST FOR ARBITRATION HAS BEEN FILED BY ONE OF THE PARTIES. BOTH PARTIES IRREVOCABLY CONSENT TO JURISDICTION IN COOK COUNTY, ILLINOIS.

LAW

ALL CONTRACT AND OTHER CLAIMS (WHETHER BASED ON CONTRACT, TORT, EQUITY, TREATY, OR CODE) WITH RESPECT TO THE PRODUCTS SOLD AND ALL CLAIMS WITH RESPECT TO THE OPERATION AND USE OF THE PRODUCTS SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF ILLINOIS, USA. THE SALES CONTRACT SHALL NOT BE GOVERNED BY THE UNITED NATIONS CONVENTION ON CONTRACTS FOR THE INTERNATIONAL SALES OF GOODS.

INVALIDITY OF PROVISIONS

IF ANY PROVISIONS OF THESE TERMS AND CONDITIONS ARE HELD TO BE INVALID, ILLEGAL OR UNENFORCEABLE, THE REMAINING PROVISIONS OF THESE TERMS AND CONDITIONS SHALL NOT IN ANY WAY BE AFFECTED OR IMPAIRED THEREBY.

C.R. Laurence Co., Inc.
Glass Machinery Division
5501 West Ogden Avenue, Cicero, IL 60804, U.S.A.

ORDERING REPAIR PARTS AND SERVICE

THE VEA1 EDGER will give you longer service if it is maintained in a consistent manner. All parts can be ordered from the manufacturer. You can contact the Machinery Service Department directly by calling (866) 583-1377

When ordering service or parts, it will be necessary to have your machines serial number handy. Use the diagram below to help locate it and write the serial number in the space below.



SERIAL NUMBER _____

DATE PURCHASED/INSTALLED _____

Glass Machinery Division of C. R. Laurence Company.
 5501 W. Ogden Ave., Cicero IL 60804
 Toll Free: (866) 583-1377 Local/International: (773) 242-2871 Fax: (708) 863-5462
 somaca.com • Email: somaca@crlaurence.com

C. R. Laurence Company
 Los Angeles CA 90085
 Toll Free: (800) 421-6144 Local/ International: (323) 588-1281 Fax: (800) 262-3299
 crlaurence.com

NOTES AND SERVICE RECORDS

