DBS106 (DRY) and DBS106W (WET) MODELS







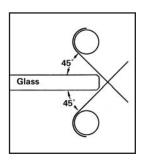
## **OPERATIONS MANUAL**



## DBS106 (DRY) AND DBS106W (WET) MODELS

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Contents	2
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#### **EQUIPMENT DESCRIPTION**



The **DBS Twin Belt Seamers** are designed to be used as part of a system consisting of the Twin Belt Seamer, a Dust Collector or Water Supply and Drain or Pump, a Ball Caster Table (with or without extensions) and a Roller Track for easy maintenance. See page 10 for Optional Equipment.

The purpose of the Twin Belt Seamer is to eliminate the sharp edges from raw glass sections. This allows easy and safe handling and also allows the glass to be tempered because sharp, heat attracting edges are eliminated. Seaming also prepares glass pieces for fabrication in insulated glass unit assembly production by eliminating the sharp edges that can produce small glass chips which may damage an insulated unit.



## PLEASE BE SURE TO READ AND UNDERSTAND THE MANUAL BEFORE YOU ATTEMPT TO RUN THE DBS TWIN BELT SEAMER OR IT'S ACCESSORIES

### The operation of this machine is as follows:

- 1. All DBS Twin Belt Seamers require two 4" x 106" abrasive belts. **CRL4X106120X** (box of 5 belts) is recommended. Other grits are available. Catalog Numbers are listed on the machine and on page 11.
- 2. The operator loads a glass lite on the ball caster table, turns the motors and dust collector (if equipped) on and runs the glass across the twin abrasive belts.
- 3. This action eliminates the sharp, chip-prone edges on raw glass. Top and bottom edges are done in one pass without turning the glass over.
- 4. The operator slides each side across the twin belts and rotates the glass to finish all four edges.
- 5. Belts of different grits are avaliable to control the amount of glass removed and the finish of the sanded edge.
- 6. By using the Ball Caster Table Extensions, irregular and curved glass pieces can be supported and seamed easily.

## DBS106 (DRY) AND DBS106W (WET) MODELS





CAT NO. DBS106W

### **DBS TWIN BELT SEAMER SPECIFICATIONS:**

Width	24" (609 mm)
Belt Intersection (working) Height (Nip)	33-36" (838-914 mm)
Overall Height	64" (1625 mm)
Length	60" (1524 mm)
Shipping Weight (DBS106W)	488 Lbs. (221 kg)
Motor HP	2 x 1 HP (1.48 kW total)
Total Amps	6.8 FLA
Voltage	3/60/230V AC
Motor Max RPM	1800
Motor Rotation	Counter-Clockwise (viewed from pulley)
Noise reading (Grinding glass)	<90 dB
Noise reading (Grinding glass with dust collector)	<93 dB
Belt Size	4" x 106" (102 x 2690 mm).

#### IMPORTANT SAFETY INFORMATION



- 1) Always operate and maintain the DBS Twin Belt Seamer in accordance with the instructions and procedures in this manual.
- 2) Do Not operate the DBS Twin Belt Seamer with any safety guards open or missing.



3) Do Not use the DBS Twin Belt Seamer for any purpose for which it was not designed. It is to be used solely to "break" the raw edges of glass to create an edge which can be handled safely.



4) Always have a clear view of the live belt area on the machine and keep other workers away from the DBS Twin Belt Seamer.



5) Always operate the dust collector (Optional) on DRY models or the water spray on WET models. This greatly reduces glass dust in the air near the machine.



6) Always wear safety glasses, a particulate mask, hearing protection, proper gloves, and other necessary safety equipment while operating and maintaining the DBS Twin Belt Seamer. When in doubt, consult with shop safety representative.

### DBS106 (DRY) AND DBS106W (WET) MODELS

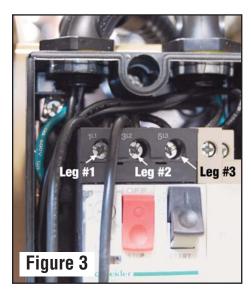
### DBS TWIN BELT SEAMER SET-UP/ASSEMBLY INSTRUCTIONS

The DBS TWIN BELT SEAMER comes fully assembled but requires the use of some optional equipment which may or may not be in place in your shop. The DBS106 (dry) requires a dust collection system such as the CRL DBS2DC unit. The DBS106W (wet) only requires a water source and a drain. Both machines will need a glass support device which can be any number of conveyors or Ball Caster Tables such as the CRL B6212100 shown on page 9.

### **UNCRATING AND SET-UP**

- 1. Start by removing all wood crating and plastic wrap.
- 2. Inspect the machine and it's parts carefully. If there is any damage, take photos of the damage. Call CRL Glass Machinery (866) 583-1377. Notify the shipping company and request an inspection of the damage and tell them you want to file a claim for the damage.
- 3. Assuming un-damaged condition, place the machine in position where it will be used and attach the 4 levelers (figure 8). Remember that you will need to connect 230V AC, 3/60 Hz power and water/drain (for a DBSW) in this position. An optional pump is avaliable for transfering waste water to a remote drain.
- 4. The machine must be set-up level and at the correct height for the glass line so that the seam is equal on the top and bottom of the glass. Often the conveyor, table or ball caster table can be adjusted as well as the DBS machine to get this correct.
- 5. The power for the DBS will be connected at the switch which is already attached to the machine by a 16' (4.8m) supply cable. This switch will need to be mounted in a position where the operator can access it easily. A reversible mounting plate is provided which will accommodate one or two switches (figure 5).
- 6. Connect a 230V AC 3/60 Hz power source to the control switch box(see figure 3). You may want to have a professional electrician do this part. Be sure to slide the switch and motor starter against the right side of the box. This will ensure correct switch alignment when the cover is replaced (see figure 4).
- 7. Check rotation of the motors. They should run clockwise when viewed from the fan end of the motors, counter-clockwise when viewed from the pulley end (with belt doors open). Belt direction is another good way to check rotation. Right side belt travels downward, Left side belt travels upward, when viewed from the operators position.
- 8. For the DBS106W, connect a water supply to the bottom of the water valve (1/4 NPT) and turn the valve on. This valve can be used to regulate the amount of water that is sprayed on the belts. (see figure 6). The water solenoid will open the water supply whenever the belt drive motors are running. Connect a hose to the drain on the stainless steel waste water tank and direct the hose to a floor drain. Most of the glass grind will stay in the tank and will need to be cleaned out during regular maintenance.

## DBS106 (DRY) AND DBS106W (WET) MODELS



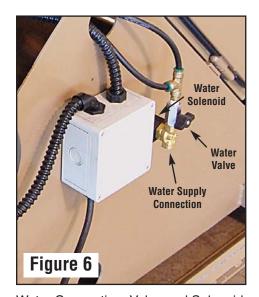
Power supply legs 1, 2 and 3 for 230V AC, 3 phase connection to switch box. Run wires down the LEFT side of switch ONLY.



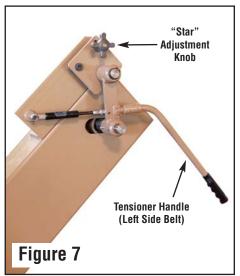
**IMPORTANT** Be sure that the switches and motor starter are <u>all the way to</u> <u>the right</u> when reassembling. This will allow switches to align with cover.



Controls switches can be mounted on the Ball Caster Tables. The reversible bracket is included with each DBS machine and can hold one or two switches.



Water Connection, Valve and Solenoid Switch located on the right side of the DBS106W machine.



Pulling down on the Left Belt tensioner handle will allow the belt to be removed from the pulleys easily. Push up on the Right Belt handle to change the right side belt. The Adjustment knob is used to adjust belt tracking.



Thread the levelers into the mounting plates on the machine with the nut under the plate. After the machine is level, tighten the nuts on each leveler.

## DBS106 (DRY) AND DBS106W (WET) MODELS

### **MAINTENANCE OF DBS106 MACHINES**

Be sure that you DISCONNECT or LOCK-OUT the electrical power before performing any maintenance. The E-Stop can be held in while the lock out tab is pulled down to place a lock in the tab. Photo at Right.

Certain maintenance tasks may require that the machine is in operation while the belt housing doors are open. Take extra care to keep away from any moving parts. It may be helpful to have a second person operate the machine while you adjust the belt alignment for example.



Power Supply Lockout.

### **REGULAR MAINTENANCE**

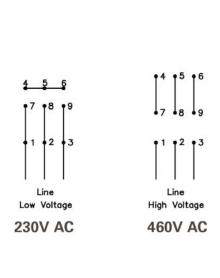
- 1. Belt Changes: (all machines): Open the belt housing door on either side of the machine. Pull down on the Left Side tensioner handle to loosen the left belt (Push up on the Right Side handle). Remove the belt and replace it with a new one. Release the tensioner handle and turn the belt through to check alignment. Alignment can be adjusted using the steel "star" knob on the tensioner assembly. (Figure 7) Close and lock the belt housing door. If, after years of use, the belts cannot be adjusted to track correctly, new pulleys will be needed, p.11. Contact the CRL Glass Machinery office at (866) 583-1377.
- 2. DBS106 (dry) Machines: Empty the dust collector regularly. Be sure to wear a high quality dust mask for this task. Unlock the lower bag strap and empty the plastic lined lower bag. Refer to the dust collector instruction manual provided.
- **3. All Machines:** Clean the outside of the DBS with mild soap and water regularly. Check inside the belt housings for any build up of glass dust and remove it.
- **4. DBS106W (wet) Machines:** Check that the water supply is working when the motors are running. Open the belt housing door and watch for water spray briefly, while the machine is running. Be sure the water is NOT spraying when the machine is off.
- **5. DBS106W (wet) Machines:** Clean glass grind out of the waste water tank regularly so it does not build up to the drain level.
- **NOTE: DBS (dry) Machines:** When using a Dust Collector with the DBS and grinding **any material other than glass**, you should ground the dust collector to the DBS with bare copper wire. See instructions in the DBS2DC Dust Collector manual.

## DBS106 (DRY) AND DBS106W (WET) MODELS

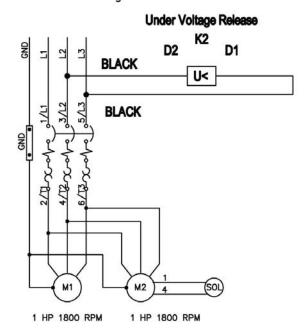
WIRING DIAGRAM FOR DBS106 (wet or dry)

To Customer Power Supply

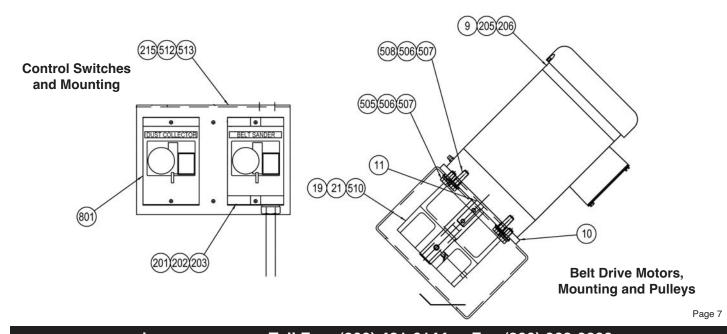
3 Phase Wiring



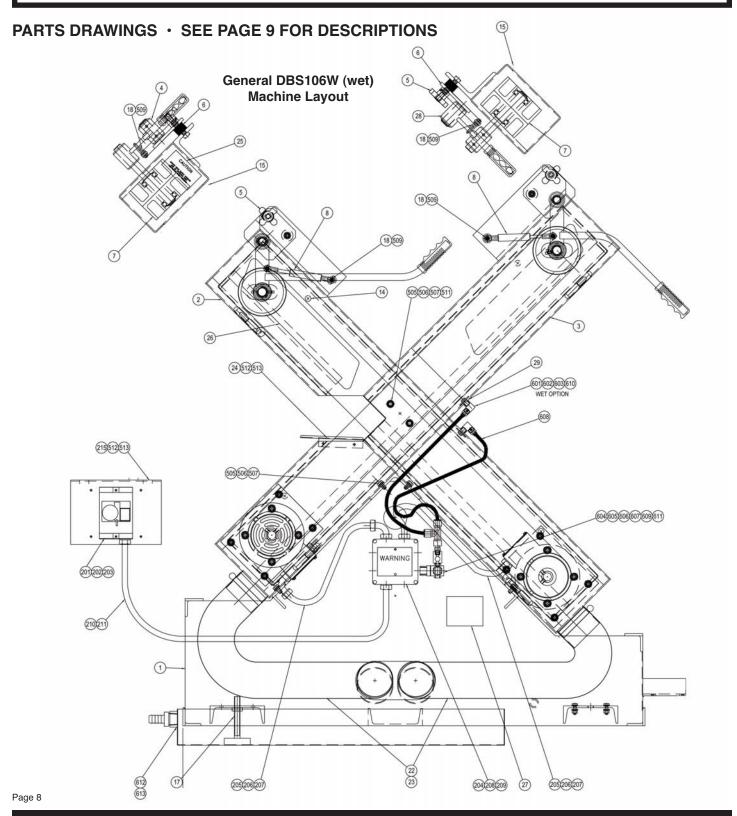
Three Phase Motor Wiring



### PARTS DRAWINGS · SEE PAGE 9 FOR PARTS DESCRIPTIONS



DBS106 (DRY) AND DBS106W (WET) MODELS



## DBS106 (DRY) AND DBS106W (WET) MODELS

### PARTS DESCRIPTIONS · PART NUMBERS REFER TO DRAWINGS ON PAGES 7 AND 8

Draw
o
Shown
Spt
Parts
Option
Track

802	1	39951024	LABEL, SERIAL NUMBER, DBS2DC
801	1	DBS2DC	DUST COLLECTOR ASSY
			DUST COLLECTOR OPTION (P822)
707	20	151-1036-0	WASHER, SPLIT LOCK 5/16 Z/P
706	20	451-1351-0	WASHER, FLAT 5/16 USS Z/P
705	20	151-0010-1	NUT, HEX 5/16-18 Z/P
704	20	150-0030-0	HHCS, 5/16-18 x 1 Z/P
703	1	463-0618-0	FLOOR LOCK, BOND 4TL-TUBULAR
702	1	3-99677-00	TRACK WELDMENT
701	4	463-0617-0	CASTER, BOND SERIES 51-A RIGID
			TRACK OPTION (P820)
613	1	423-3307-0	NIPPLE, COMB. 1" NPT x 1"ID TUBE
612	1	3-99793-00	DRAIN PAN
611			
610	2	451-1405-2	WASHER, FLAT 1/2 USS Z/P
609	1	114-0345-0	LOCKNUT, CONDUIT 1/2
608	10	499-0002-0	TUBING, 3/8 OD BLACK
607	1	421-0139-4	TEE, MALE RUN, 3/8T x 1/4MNPT
606	1	420-5349-2	VALVE, BALL, 1/4 NPT, M/F WOG 200
605	1	419-0063-0	VALVE, SOLENOID, 2 WAY NC
604	1	114-0265-1	NIPPLE, CONDUIT, 1/2 NPS x 1" Z/P
603	2	421-0188-0	CONN, PUSHLOCK, 1/4X 3/8
602	2	420-1101-4	ELBOW, 1/4 NPT BRASS
601	2	422-0195-3	NOZZLE, #H1/4 M-4 BRASS
			WET OPTION (P819)
513	5	451-0410-0	NUT, ESNA 10-24 ST STL
512	5	450-4501-1	BHCS, 10-24 x 1/2 LG SST
511	2	151-0002-1	NUT, HEX 3/8-16 ST STL
510	4	450-4935-0	SSS, 1/4-20 x 3/8 FULL DOG, BLK OXIDE STEEL
509	4	450-2576-0	SHCS, M6 x 45 mm LG BLK OXIDE
508	8	450-0064-2	HHCS, 3/8-16 X 1 ST STL
507	20	451-1350-2	WASHER, FLAT 3/8 ST STL
506	18	151-1037-2	WASHER, SPLIT LOCK 3/8 ST STL
505	18	150-0053-2	HHCS, 3/8-16 X 3/4 ST STL
ITM	QTY	PART NUMBER	OF MATERIAL

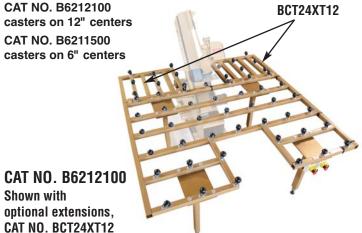
IIM	<u>ur</u>	PART NUMBER BILL	OF MATERIAL
IT14	OTY	DADT MUMADED	COMMON ITEMS
1	1	3-99651-00	BASE WELDMENT
2	1	3-99765-00	BELT HOUSING ASSEMBLY, INSIDE
3	1	3-99766-00	BELT HOUSING ASSEMBLY, OUTSIDE
4	1	3-99774-00	TENSIONER ASSEMBLY, INSIDE
5	2	330007	ADJUSTMENT KNOB
6	2	330014	TENSIONER MOUNTING KIT
7	2	330011	UPPER PULLEY ASSEMBLY
8	2	330012	GAS SPRING
9	2	410-4804-0	MOTOR 1 HP 208-230/460V 50/60HZ 3 PH1800 RPM
10	2	3-99676-00	MOTOR PLATE
11	2	3-99819-00	SLINGER, 5/8 x 1-3/4 x 1/16, NEOPRENE
12			
13			
14	4	461-0806-0	CAM LATCH McMASTER 1702A42
15	20	499-1024-0	TRIM SEAL McM 1120A112
16			
17	4	469-0269-1	LEVELING PAD °3.15 x 5/8-11 x 5.38 LG
18	4	469-0206-1	SPACER, 1/2 OD x 1/4 ID x 15/16 LG
19	2	2622028	LOWER PULLEY
20		COMPANIA TRADEROSA	
21	2	3-99759-00	EXTENSION SHAFT, MOTOR
22	6	299-0060-0	HOSE 4"
23	4	160-0316-0	CLAMP, HOSE
24	1	3-99768-00	SPLASH SHIELD
25	1	3-79654-00	CAUTION LABEL
26	2	427-0014-2	LABEL, CRL GLASS MACHINERY 3" x 16"
27	Ė		, , , , , , , , , , , , , , , , , , , ,
28	1	3-99773-00	TENSIONER ASSEMBLY, OUTSIDE
29	2	412-2797-0	PLUG, HOLE 1/2
201	1	415-5929-0	KIT, MANUAL STARTER PUSHBUTTON
202	1	415-5928-3	ENCLOSURE, SURFACE MOUNT
203	1	415-5909-0	MSP, 6.0-10.0 A, 3 POLE, 600V
204	1	427-0011-0	LABEL WARNING ELECTRICAL HAZARD
205	4	114-0345-0	LOCKNUT, CONDUIT 1/2
206	2	414-0055-0	CONNECTOR, CONDUIT, 3/8 STRAIGHT
207	6	236-0059-0	CONDUIT, 3/8 PVC SUPERFLEX
208	1	411-0413-0	ENCLOSURE, 5 x 5 x 3
209	45	414-2254-0	TERM RING 16-14GA 10 STD NONIN
210	2	414-0223-5	CONNECTOR, LIQUID TIGHT
211	16	234-0412-0	CORD, 14-4 SJO
212	10'	234-0270-0	WIRE 14GA RED MTW
213	10'	234-0267-0	WIRE 14GA BLACK MTW
214	5'	234-0269-0	WIRE 14GA GREEN MTW
215	1	3-99794-00	CONTROL BOX MOUNTING BRACKET
216	3	414-0112-0	CONNECTOR, 90°, 3/8", BLACK NYLON
217	10	41425060 415-5925-3	TIE CABLE BLACK HEAVYDUTY UNDERVOLTAGE RELEASE 230V 60 HZ
218	40	41405000	TIE CADI E DI ACK HEAVYDLITY

## DBS106 (DRY) AND DBS106W (WET) MODELS

#### OPTIONAL EQUIPMENT FOR DBS TWIN BELT SEAMER SYSTEMS

### **BALL CASTER TABLE WITH CUT-OUT**

The Ball Caster Tables make seaming glass easy. Inspection models have a cut-out for the operator. Working Height is adjustable and tables come with casters at 12" or 6" centers. This model is 5' x 7' (1.5 m x 2.1 m). Other sizes available.



### **BALL CASTER TABLE EXTENSIONS**

The Ball Caster Table Extensions allow irregular shaped glass to be precisely seamed. Curved pieces can be worked around the belts and still be fully supported. Available in 6" and 12" centers, these extensions attach to the ball caster tables with 2 bolts and are sold in pairs.

### CAT NO. BCT24XT6

### CAT NO. BCT24XT12





#### **DBS ROLLER TRACK WITH BRAKE**

The DBS Roller Track allows the Twin Belt Seamer to be rolled back 42" from the production line for easy maintenance.



### **DBS DUST COLLECTION UNIT**

The DBS106 (dry) requires a
Dust Collection System and our
DBS2DC is a perfect match.
The lower collection bag is lined
and easy to change.
The two horsepower motor runs
at 230 Volts, 60 Hz/3 phase for
low amp draw at 3600 RPM.
The dust collector control switch
is pre-wired to the machine with
20 feet (6.1m) of cable to make
your installation easy.

CAT NO. DBS2DC

## DBS106 (DRY) AND DBS106W (WET) MODELS

### BELTS AND REPLACEMENT PARTS FOR THE DBS106 AND DBS106W TWIN BELT SEAMERS

# CRL 4" x 106" Wet or Dry Abrasive Belts



CAT.NO.	GRIT
CRL4X10636X	36X
CRL4X10640X	40X
CRL4X10650X	50X
CRL4X10660X	60X
CRL4X10680X	80X
CRL4X106100X	100X
CRL4X106120X	120X
CRL4X106150X	150X
CRL4X106180X	180X
CRL4X106220X	220X
CRL4X106320X	320X
CRL4X106400X	400X
CRL4X106600X	600X
CRL4X106CORK	POLISH

Five belts per box, except cork, which has two

# Water Solenoid and Spray Nozzle



CAT. NO.	DESCRIPTION
41900630	Water Solenoid Valve
42201953	Water Spray Nozzle

Minimum order for all parts is one each.

### Typical Use of Different Grits Available and Results of Their Use

GRIT	TYPE	APPLICATION	EXAMPLE
60X	Extra Rough	For removing glass fast	Mitered edge
80X	Rough	For quick contouring	Auto glass edge
120X	Smooth	For seaming and polishing	Desk top edge
220X	Extra Smooth	For fine frosted finish	Step used before 400X belt
400X	Fine	For satin finish	Finest opaque edge

### **Pulleys and Gas Tensioner Strut for DBS106 Twin Belt Seamers**



CAT. NO.	DESCRIPTION
2622028	Lower Pulley



CAI. NO.	DESCRIPTION
330011	Upper Pulley Assembly



OAII NO.	DECOMM HOM
330012	Tensioner Gas Cylinder

Page 11

## DBS106 (DRY) AND DBS106W (WET) MODELS

### **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, NEGLECT, ACCIDENT, OR FAILURETO 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 BETWEENTHE CUSTOMER AND SELLER SHALL BE SETTLED BY ARBITRATION BETWEENTHE 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.

October 2012



10-12