

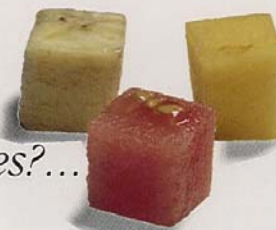
CutoMato

S L I C E - O - D I C E

FRUIT & VEGETABLE CUTTER/DICER



is it hard to dice the soft ones?...



North Star Engineered Products

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Complies With
UL 763
Motor-Operated Food
Preparation Equipment

Listing #E112231



VEGETABLES SLICING MACHINE, CUTOMATO MODEL 51

Instructions Manual

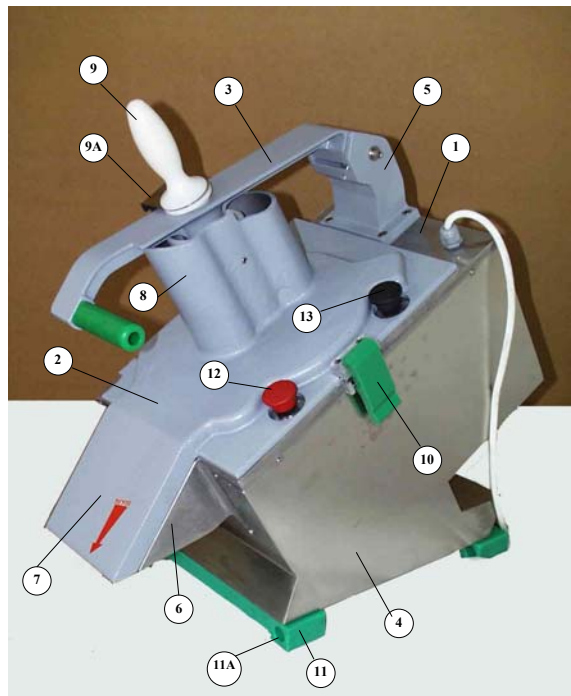
General

The Vegetables Slicing Machine, **Cutomato** Model 51, can process all types of vegetables and fruits, including the soft and squashy ones.

General Description

The Slicing Machine includes the following basic components:

1. The machine body
2. Machine cover
3. product pusher handle
4. Stainless Steel Cover – casing
5. Handle axis support and limit switch housing
6. Products fennel (body part)
7. Products fennel (cover part)
8. Feed tube for products input
9. Manual pusher
10. Cover locking handle
11. Base supporters
12. Off switch
13. On switch



Power Supply

Voltage: 208 – 230 VAC

110 VAC

Capacity: ½ HP

Operation

1. Place machine on stable working table, 70 cm high.
2. Place machine so there is space left on the working table for placing a container under the fennel (6) for collecting the sliced products. If the base supporters (11) are too close to the table's edge (if the working table is less than 80 cm wide), you can choose between the 2 following options to your convenience:
 - Placing a mobile container adjacent to the working table, under the fennel, at an appropriate height.
 - Installation of leading rods into the leading feed tube (11A) on the base supporters. When selecting this option, it will be possible to place vessels, of a maximum of 11 cm high over these rods.

3. Generally, products are inserted through the feed tube (8) and are pushed in using the pushing handle (3). Elevating the handle beyond a certain height will automatically stop machine operation.

Working Methods

Products can be prepared and processed in 3 optional ways:

Option # 1: Cutting of relatively large and hard vegetables, such as: potatoes, radishes, onions, apples.

Option # 2: Slicing of soft and squashy vegetables and fruits of up to 78 mm in diameter in various shapes (chips, cubes, and slices).

Option # 3: Precise cutting of round slices of up to 44 mm in diameter, of elongated vegetables and fruits such as: cucumbers, squash, bananas, carrots – using a special feed tube.

The final shape of the sliced products is detailed in the table on page...

Option # 1

1. **Prepare the pushing handle:** attach the pushing shaper (part No. 20) into the handle feed tube (3) by pressing the two spring pins and sliding it inside until pins are released into the designated bores (pictures No. 2.1 and 2.2).
2. **Prepare the product feed tube on the cover:** the feed tube (8) is clean and there is no other adapter.

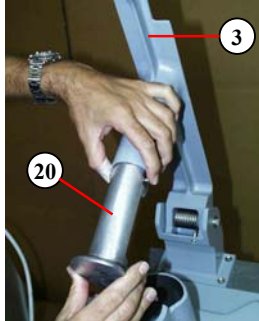


Fig. 2.1



Fig. 2.2

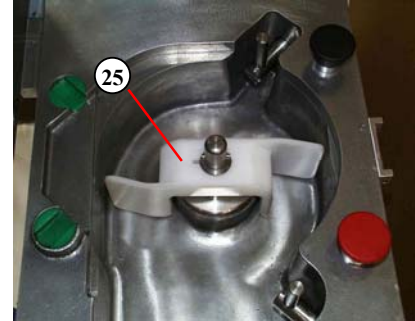


Fig. 2.3

3. Preparation of the slicers:
 - **Open cover.** Move pushing handle as far to the back as possible. Open cover by releasing closure (part No. 10 in picture 1) and turn cover counter clockwise.
 - Attach plastic slinger (part No. 25 in picture 2.3).
4. Slicing options
 - Cutting slices: attach disc according to the required slice size (see picture 2.4).

- Grating or Waldorf style: attach the grating or Waldorf disc as in the slicing options.
- Cutting different sizes of cubes or sticks. Place permanent disc on its designated base (picture 2.5), and attach the desired blade above it (picture 2.6).

Note: place the plate only after you swiftly clean the base.

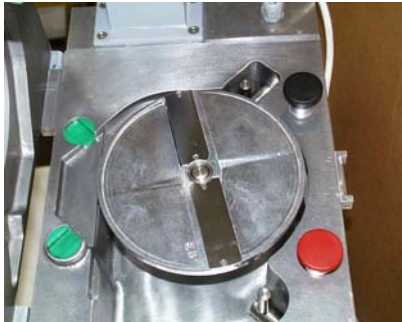


Fig. 2.4



Fig. 2.5



Fig. 2.6

Warning!

- | |
|---|
| <ul style="list-style-type: none"> ■ Hold blades only in designated holding points. ■ Keep your fingers away from blades. ■ Never apply too much pressure when installing or removing the cutting appliances. ■ Always act gently and with consideration. |
|---|

Option # 2

1. **Prepare the compression system:** attach the special round compressor as described in option # 1 (see picture 3.1).
2. Prepare the feed tube. Place round adapter into its designated niche in the feed tube. You can find the adapter's correct place by turning it and then slide it all the way inside (see picture 3.2).



Fig. 3.1

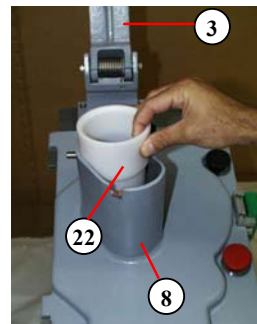


Fig. 3.2

Prepare blades:

- Open cover as described in option # 1.

- Do not install the plastic ejector if you intend to cut an especially soft or squashy vegetable or fruit (such as a tomato).
- Install the slicing blade (part No. 24) in accordance with the cutting plate (see picture 3.3).
Note: always make sure (by touch) that the blade adapter will be in its designated place, on the main axis.
- Install the blades frame (part No. 23) as shown in pictures 3.4 and 3.5. Ensure contact between front leading points on sliding surface frame (green bushing – part No. 27), and the lower side of the adapter bushing of the frame (part No. 23A) to the horizontal dynamic leading rod (part No. 28).
- **Notice:** the frames are installed gradually. Initially place the lower frame. Note
that frames are identical. Note that you can obtain sticks by installing frames only – without using the slicing blade. Slices can be obtained by using the upper frame only.

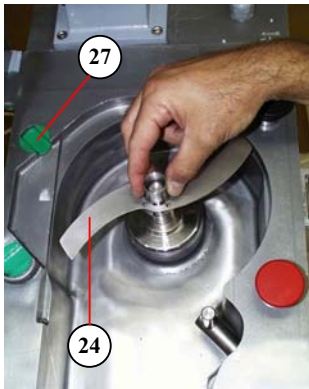


Fig. 3.3

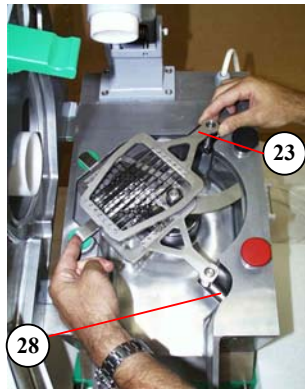


Fig. 3.4

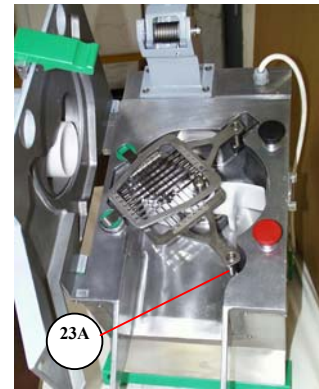


Fig. 3.5

Warning!

- Assembly and disassembly of components will always be done **without exerting any force**.
- It is forbidden and undesired to draw fingers near any of the blade types.
- Always act gently and with consideration.

Option # 3

1. **Prepare the pushing system:** using this method, products are pushed in with the manual pusher (part No. 9) or without it at all – the vegetable is pushed into the blades by its own weight (a cucumber for example).

2. **Prepare the feed tube.** Using this method, the feed tube handle (3), together with the adapter (9A) become the feed tube. Lower the handle and insert the plastic adapter (9A) (see picture 4.1).
Make sure the pin set on the feed tube (30) will be inserted, by a ¼ turn, into the slit in the Stainless Steel ear-shaped adapter (picture 4.2).
Products are inserted using the manual compressor as shown in picture 4.3.
3. **Prepare blades:** prepare blades by selecting one of the possibilities described earlier. Usually, one of the slicing blades is selected.

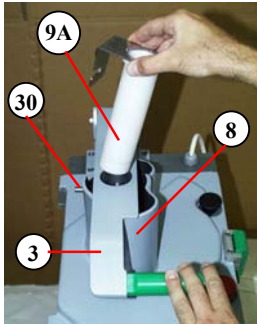


Fig. 4.1

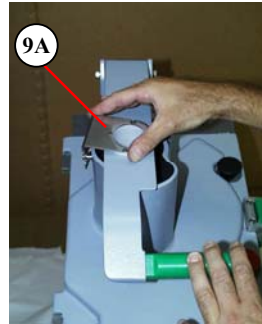


Fig. 4.2

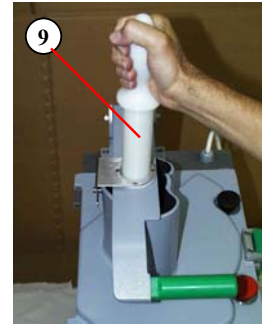


Fig. 4.3

Warning!

- **Never insert your fingers through the cut product outlet fennel (parts 6 and 7). If any cut vegetables have accumulated it should be cleaned only after the cover is opened!**

Cleaning Operations

1. During work, when transferring between different types of slicing or products, you may open the cover and, quite easily, manually remove remaining product from the machine inner spaces into the collecting vessel.
2. Upon completion of work, rinse the inner parts only with running water. The cover, which can be easily removed, can also be rinsed with running water.
3. **Warning!** Never let running water come in contact with **upper surface of machine body**, (see area 5C in picture 5.1), **connecting line to closure** (5A in picture 5.1), and **area of connection to handle** (5B in picture 5.1).
These surfaces can be wiped with a damp cloth only.
4. All cutting appliances and adapters will be cleaned separately in running water. All these

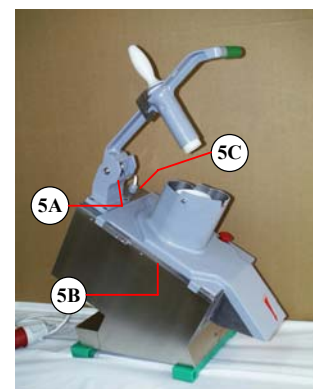


Fig. 5.1

appliances can be cleaned in the dishwasher.

Warning!

- Never attempt to free remains of food, which are stuck in the blades, with your fingers.

Preventive Maintenance

The operator can perform the following maintenance jobs:

1. Replace blades on the moving frames.

During normal operation, a blade will need to be replaced once every few months:

- When blade looks damaged (worn, blunt, cracked, etc.), replace it by releasing the 2 screws attaching it to the frame. Open screws gently and carefully with a screwdriver.
- Release blade from frame while paying attention to the way it was installed.
- Place the new blade exactly in the same way as the other blades. Do not turn its direction.
- Before closing screws, wipe clean the screw head.

During normal operation, send the slicer to be sharpened every 4 to 6 months.

- Always have a spare slicer at hand.
- Release the installed slicer from the adapter by releasing 6 screws.
- Send the slicer for sharpening.
- Install the reserve slicer.

2. Send the slicing blades to a professional grinder for sharpening.

3. Perform daily lubrication.

Every morning, before commencing work, place several edible oil drops (soy oil, for example) over:

- The moving rods (part No. 28 in picture 3.4)
- The green bushings that are used for the sliding surfaces (part No. 27 in picture 3.4).

Description of Different Cutting Appliances

FR Blade Frames:

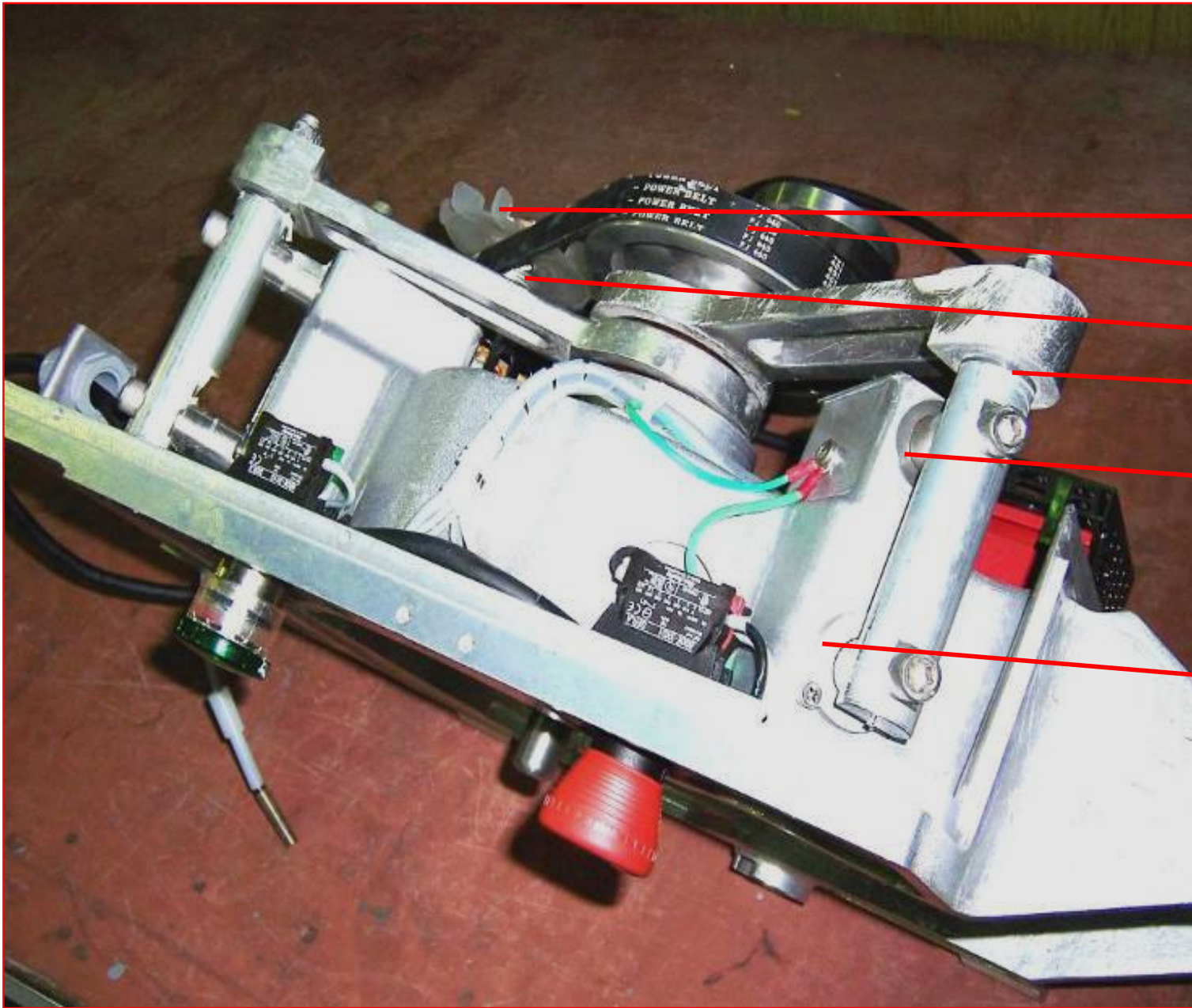
The standard blade frames included with the machine include 7 blades each (10-mm space between each of the blades). In order to achieve slices in thin/thick geometry it is possible to order frames with a different number of blades:

R1	1 blade	40 × 40 mm space
FR3	3 blades	22 × 22 mm space
FR5	5 blades	16 × 16 mm space
FR7	Standard	
FR9	9 blades	9 × 9 mm space

The Slicing Knife:

Used for cutting all soft vegetables/fruits.

Note: **Do not use** the frames and the slicing knife to cut especially hard vegetables/fruits such as: Potatoes, Radish, carrots, etc. In addition to soft products (tomatoes, oranges, bananas, melons, etc.), it is possible to also cut cucumbers, apples, peppers, etc.



55543500

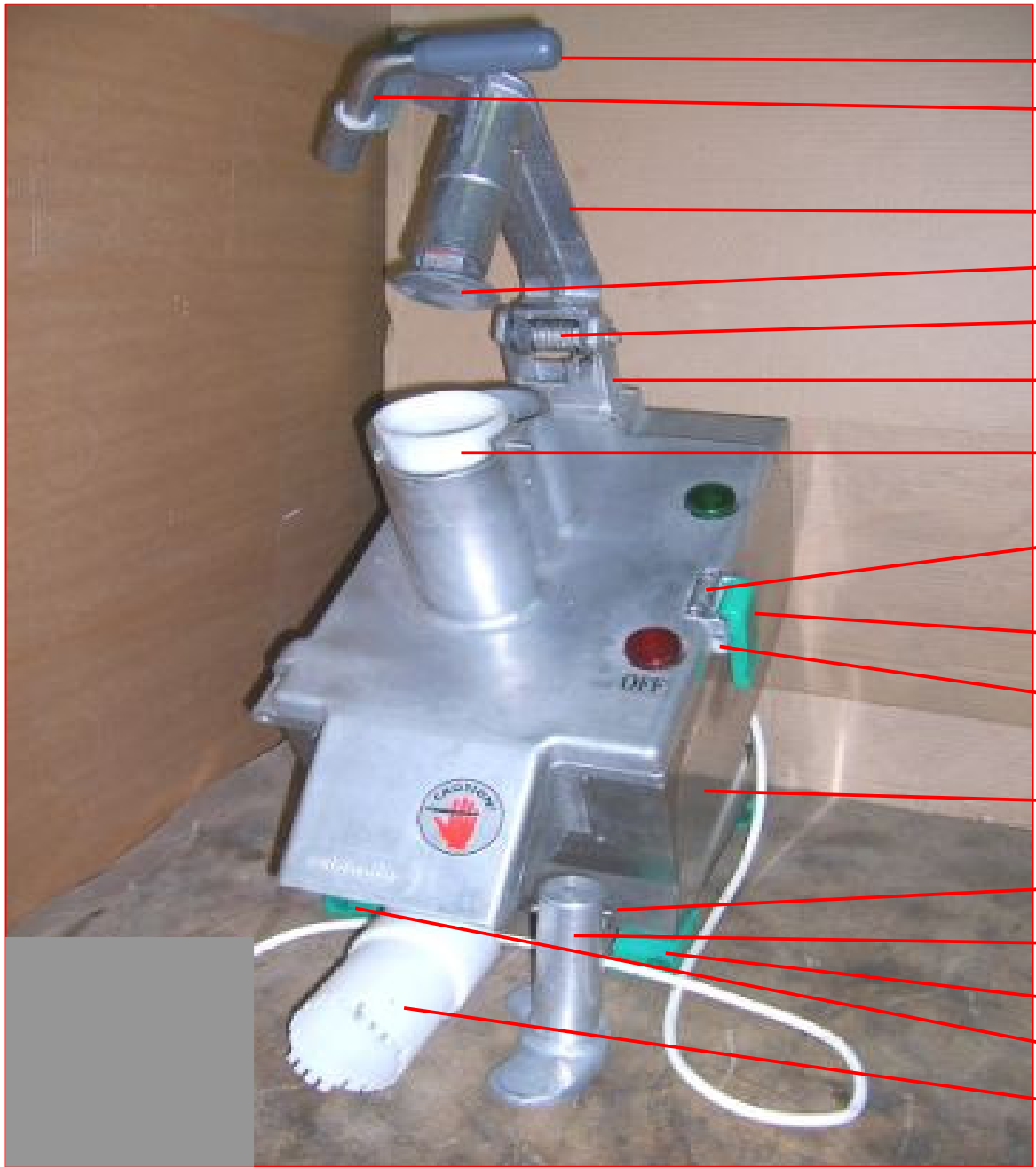
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55540800

55540500

55543110

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55552600

55552500

55552310

55548600

55548300

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55549200

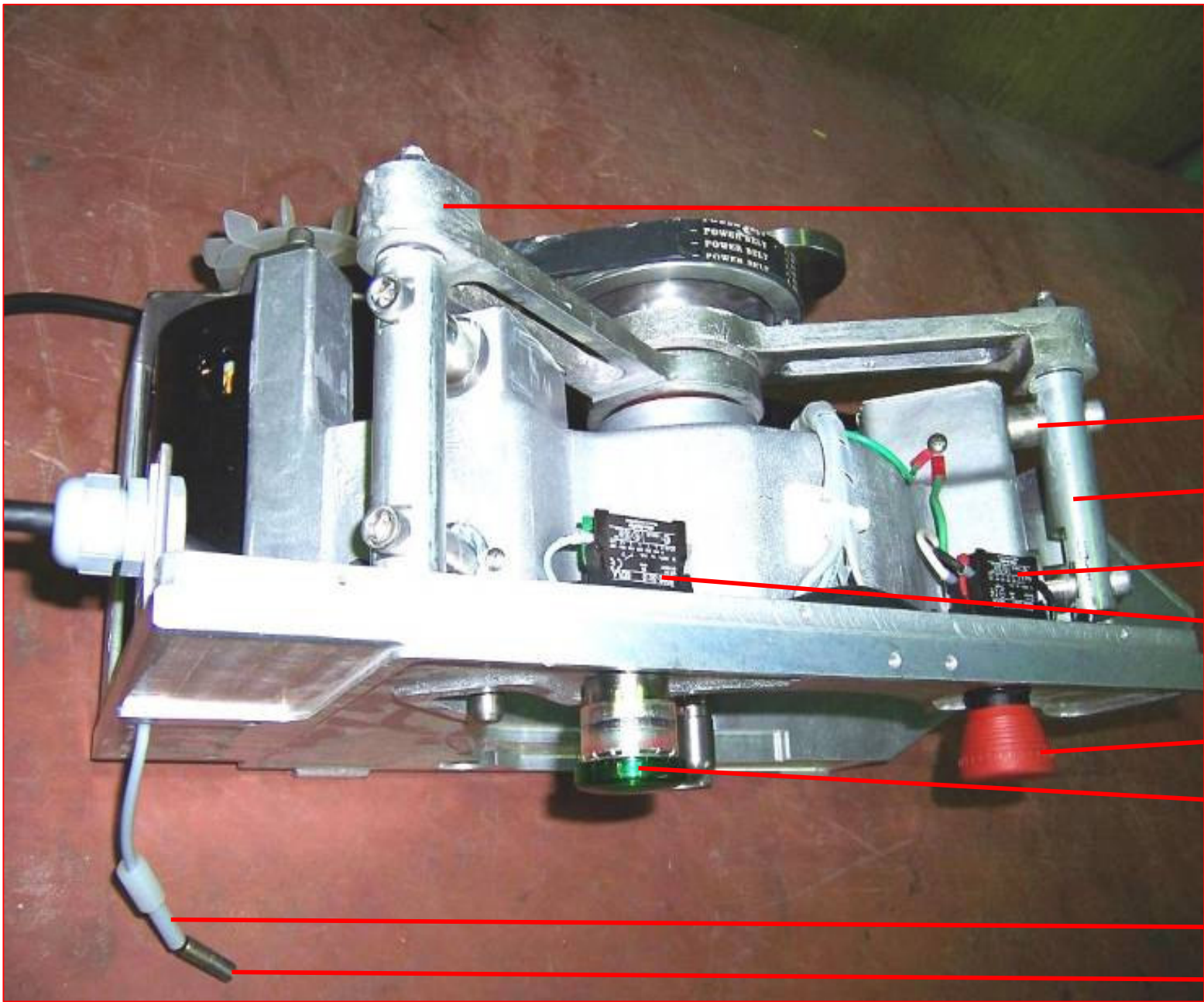
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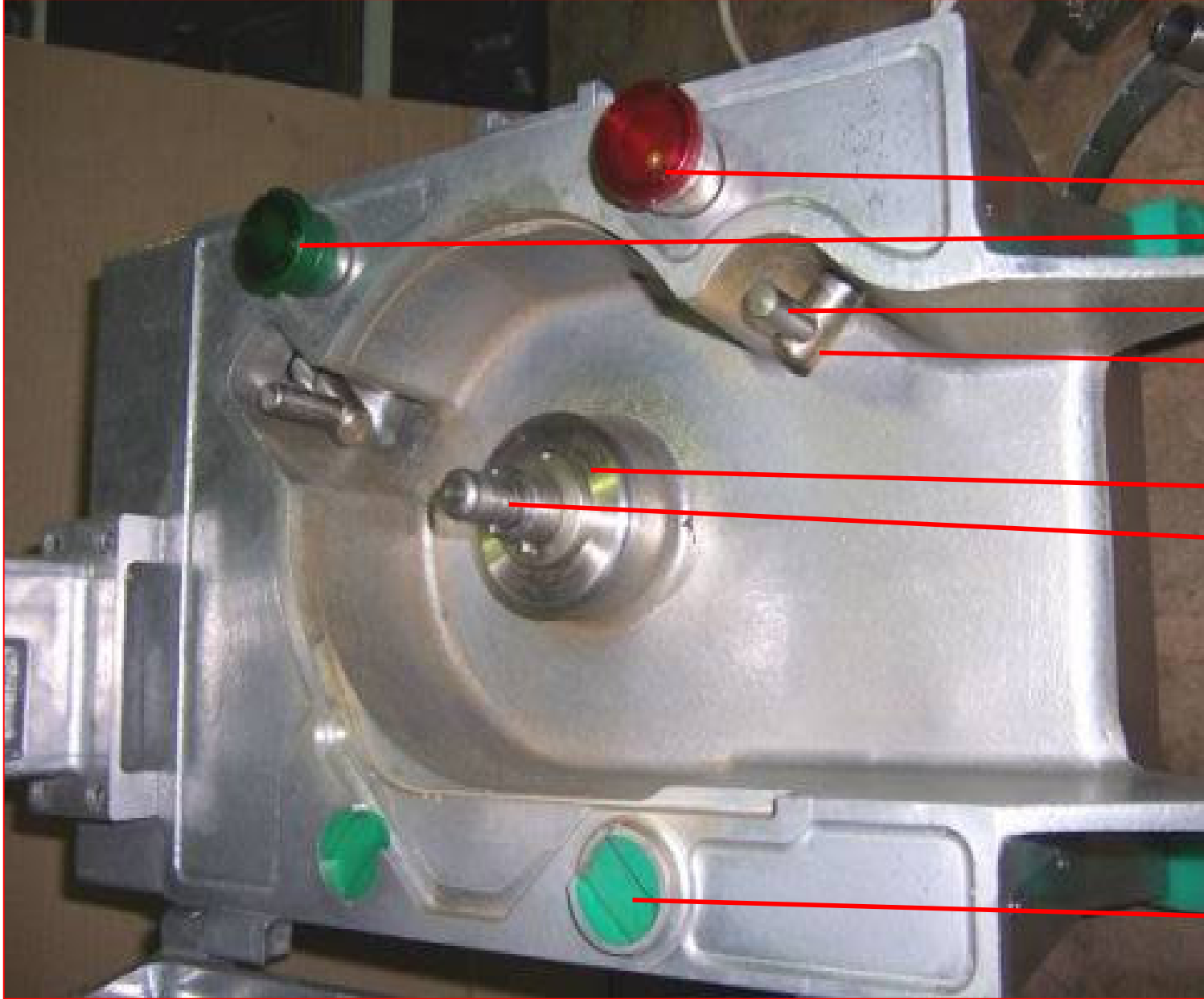
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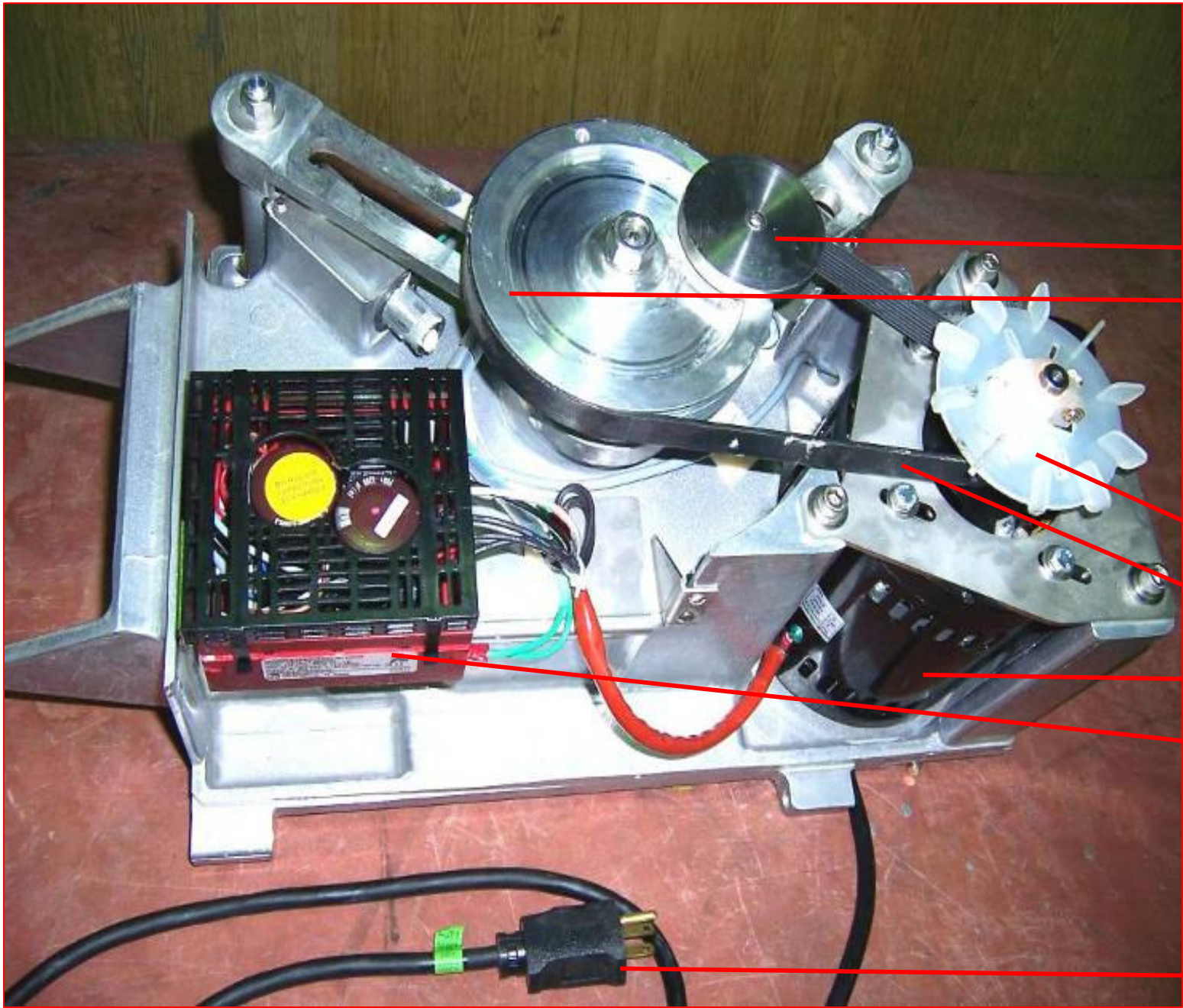
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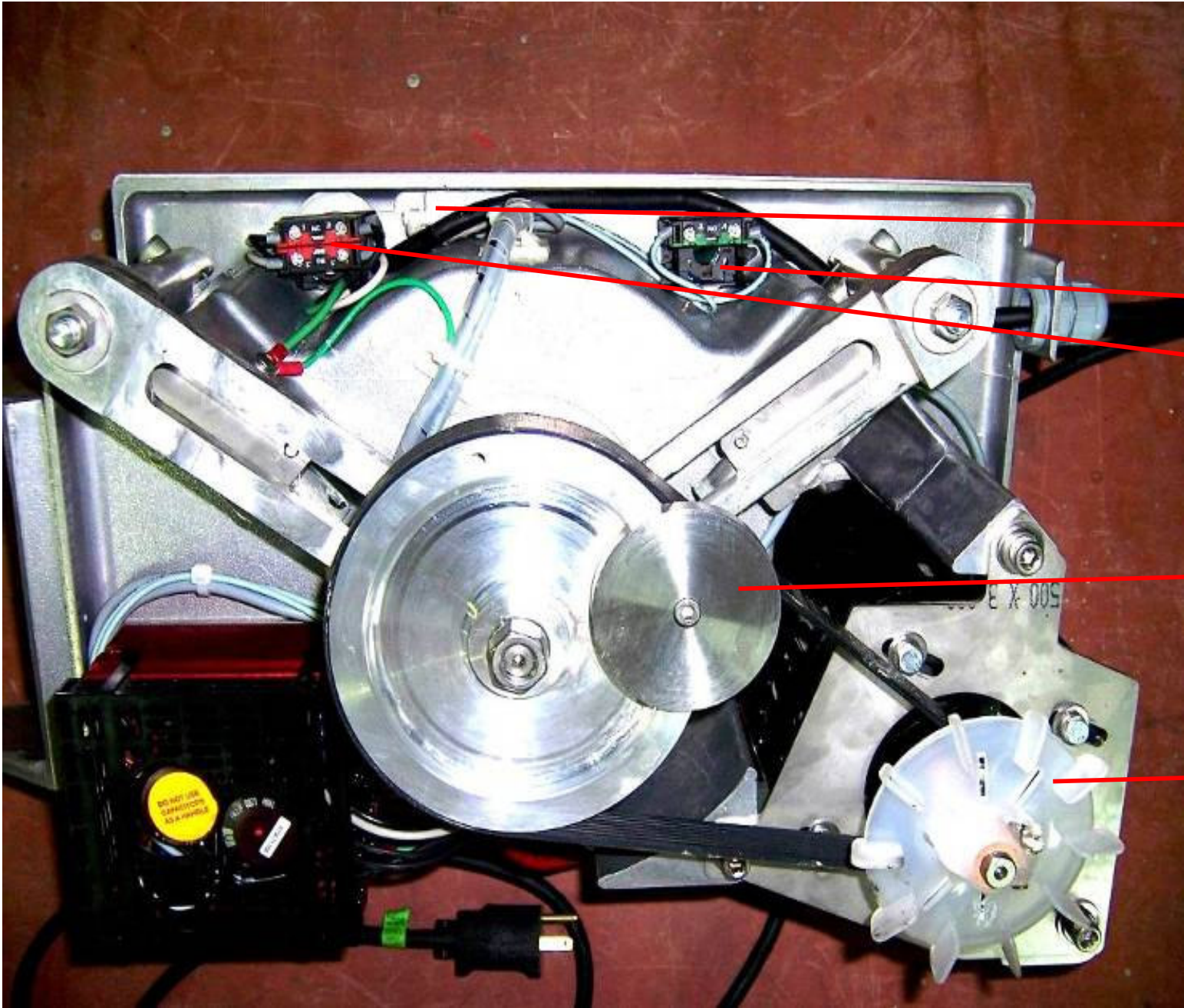
55543500

55543800

55543220

55541500

16089858



16170032

16100101

16100102

5551800

55543500

Spare part	Cat. No.
DRIVE SHAFT	55542300
LOWER HORIZONTAL LEADER	55542400
VERTICAL CASSETTE LEADER	55542500
BELT	55543800
COVER AXIS BUSHING	55544200
FRONTAL PLASTIC SLEEVE	55544300
COVER MIDDLE LOCK	55547100
COVER LOWER LOCK	55547200
COVER UPPER LOCK	55547300
ROUND PLASTIC ADAPTOR	55547500
HANDLE AXIS	55548100
BASE AXIS BUSHING	55548110
TORQUE SPRING	55548300
TORQUE SPRING BUSHING	55548400
HANDLE AXIS BUSHING	55548500
ROUND PLUNGER COMPLEX	55548600
SPRINGY GRIP	55548900
SHEET MANTLE	55549200
RIGHT SUPPORT	55549500
LEFT SUPPORT	55549510

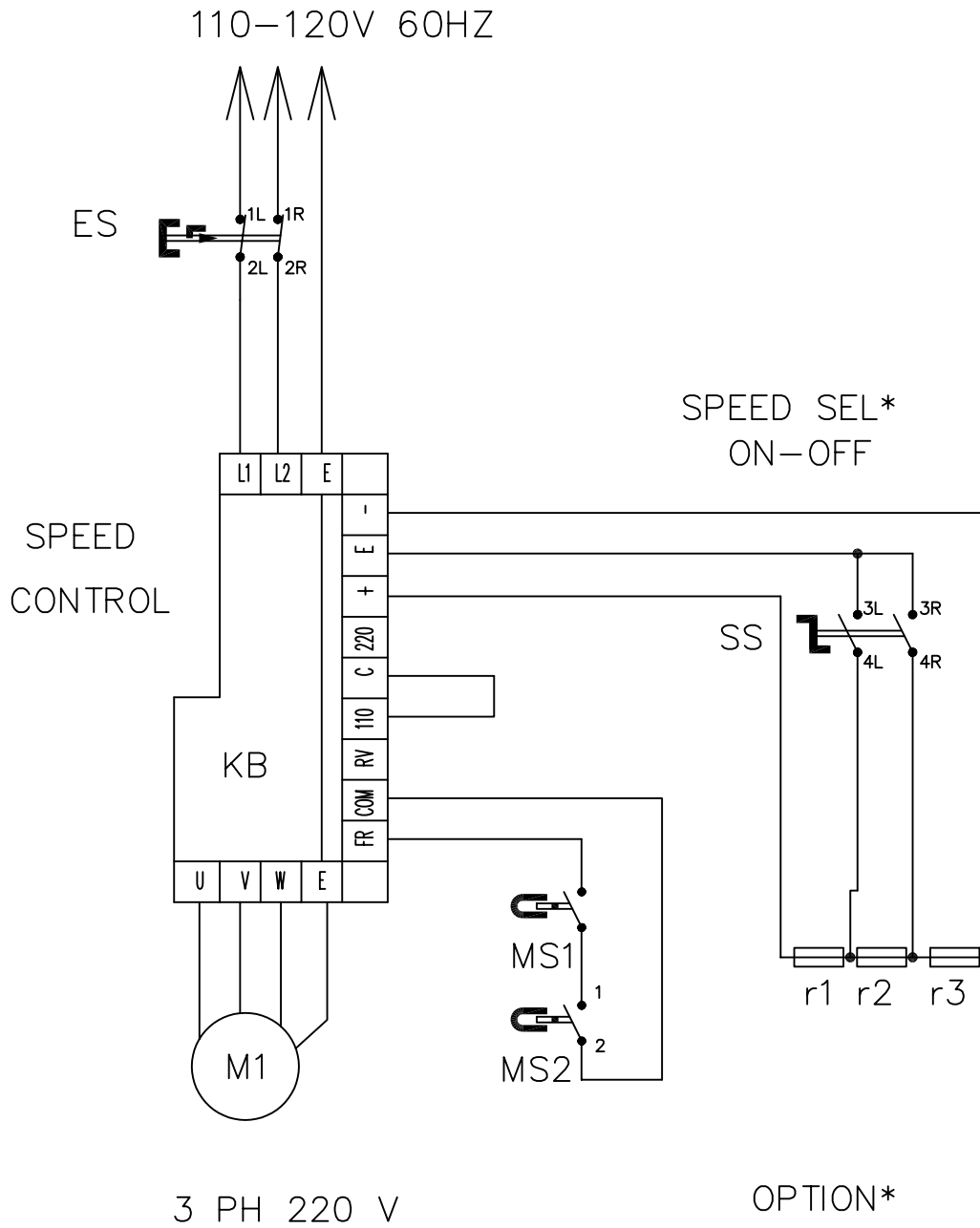
Spare part	Cat. No.
START PUSH BUTTON	16020040
EMERGENCY PUSH BUTTON	16020041
POWR SUPPLY CORD CAT.NO.09858	16089858
"NO" PUSH BUTTON CONTACTOR	16100101
"NC" PUSH BUTTON CONTACTOR	16100102
MAGNETIC SWITCH	16170032
EC2-101 24 AWG PVC SPST 6" LDS	16410011
OIL SEAL	55000005
BUSHING IGUS 21	55102321
BALL BEARING - 6008-2RS1	55106008
BALL BEARING - 6304-2RS1	55106304
IGUS 21	55540300
IGUS 16	55540400
IGUS 28	55540500
LARGE BELT WHEEL	55540710
CENTRAL AXIS	55541100
CENTRAL AXIS COVER	55541300
ECCENTER	55541400
CONNECTION ROD (BIELA-510107(55542100
UPPER HORIZONTAL LEADER	55542200
RED WASHER HOUSING	55542210
RED WASHER	55542220
SMALL BELT WHEEL	55543110

Spare part	Cat. No.
DYNAMIC BALANCING WEIGHT	55551800
DYNAMIC BALANCING WEIGHT	55551800
SHAPED PLUNGER COMPLEX	55552000
BASE	55552210
PROCESSED ALUMINUM HANDLE	55552310
PIPE GRIP	55552500
PVC CUSHION FOR PIPE GRIP	55552600
MAGNETIC SENSOR ADAPTOR	55553500

SPARE BLADE FOR BLADE RACK

FR BLADE

COMPONENTS TO BE UL APPROVED/RECOGNIZED
 WIRING CONFORMING TO NEC



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 AUTHORIZED IN WRITING BY THE PROPRIETOR
 PALBAM MW IL-18960 EN-HAROD IHUD ISRAEL

VEGETABLE
 CUTTER

SURFACE DIN 3142

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GENERAL

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VARIATION IN DIMENSIONS
 WITHOUT TOLERANCE IND.
 ISO 2768-1973 E

APPLICABLE STANDARDS

PALBAM STDS MANUAL

DATE 5/03

SIG ELI

DRWN 5/03

CHCK

APPR 5/03

ELI

ELECTRIC SYSTEM
 SCHEMATIC

SCALE:

NEXT ASSY

USED ON



PALBAM

DWG. No. W\CUT\CUTeIUL

REV

LOC

B

A4

• SLICING •

E1 (1/32") **E2 (1/16")**

- VERY FINE SLICING, POTATO CRISPS
- FINE SLICING

E3 (1/8") **E8 (5/16")**

E4 (5/32") **E10 (3/8")**

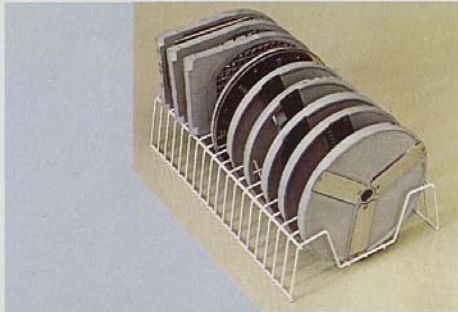
E6 (1/4") **E14 (9/16")**

E5 (3/16") **W4 (5/32")**

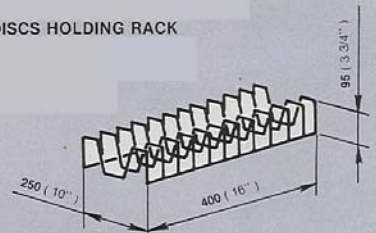
- TOMATOES, LEMONS, ORANGES, APPLES, PINEAPPLES
- SCALLOP CUT

• DICE •

D8 + E8 (5/16") **D10 + E10 (3/8")** **D12 + E10 (1/2")** **D20 + E14 (3/4" + 9/16")**



• DISCS HOLDING RACK



• STRIPS •

B6 + E6 (1/4") **B8 + E8 (5/16")** **B10 + E10 (3/8")**

• MATCH LIKE CUT •

H2 (1/16") **H4 (5/32")** **H8 (5/16")** **H10 (3/8")**

• OUTPUT PER HOUR

	Kg.	Lbs.
E2 (1/16")	100	220
E3 (1/8")	150	330
D10 + E10 (3/8")	250	550
D20 + E14 (3/4" + 9/16")	350	790
B10 + E10 (3/8")	300	650
H10 (3/8")	300	650
W4 (5/32")	200	450
Z3 (1/8")	150	330

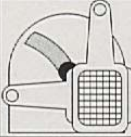
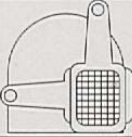
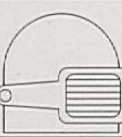
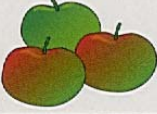



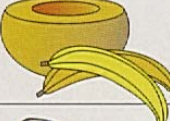








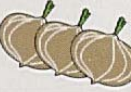

















• GRATING •

Z2 (1/16") **Z3 (1/8")** **Z4 (5/32")** **Z7 (9/32")**

• FINE GRATING •

• PARMESAN, CHOCOLATE, NUTS, BREADCRUMBS, ETC.

Choice of cutting method for desired product

Blade			
Cutting method	Cubes	Sticks	Slicing
Size (mm)	10, 13, 16, 22, 40	10, 13, 16, 22, 40	10, 13, 16, 22, 40
			
			
			
	← Use Discs →		
	← Use Discs →		
			
			
			
			
	← Use Discs →		
			



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Fax : 419/666-1549
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GENERAL TERMS AND CONDITIONS OF SALE

This agreement sets forth general terms and conditions of sale. The quotation and sales contract may incorporate additional and more specific commercial and technical requirements of sale. The following general terms and conditions are mutually agreed between BUYER and GLASSLINE to be a part of the sales and purchase order documents.

1. DEFINITIONS AND GENERAL TERMS AND CONDITIONS

- A. The term GLASSLINE shall refer to Glassline Corporation and all of its affiliated divisions.
- B. The term EQUIPMENT shall refer to any machine, part, product or service sold by GLASSLINE, including subcontracted/purchased items/options.
- C. The term BUYER shall refer to the buying company and, where applicable, its subcontractors.
- D. The terms and conditions set forth in this agreement are effective at the receipt of order by BUYER and are subject to change by GLASSLINE without notice before receipt of order by Buyer.
- E. Quotations are valid for 30 days, unless noted otherwise.
- F. No terms, conditions, understandings, usage of trade, dealings or agreements, purporting to vary, modify, explain or supplement this agreement shall be binding, unless and until hereinafter made in writing and signed by BUYER and GLASSLINE.
- G. This agreement, and its interpretation, shall be governed by the laws of the State of Ohio. If any provision or term of this agreement is held to be invalid, void or unenforceable, the remaining provisions and terms of the agreement shall remain in force and effect, and shall in no way be affected, impaired or invalidated thereby. In all cases, the rights and duties of the parties in a dispute arising out of this transaction shall be governed by the laws of the State of Ohio.
- H. The delegation or assignment by BUYER of any or all of its duties or rights under this agreement without the prior written consent of GLASSLINE shall be void.
- I. Any information, suggestions or ideas transmitted by BUYER or GLASSLINE, or any of their respective representatives, in connection with the performance under this agreement are not to be regarded as secret or submitted in confidence, except as may be otherwise provided specifically in a document signed by a duly authorized representative of GLASSLINE.
- J. This agreement supersedes all previous agreements, written or verbal, and contains the entire agreement between the parties.

2. TERMS AND CONDITIONS OF BUYER

Should BUYER have standard terms of acceptance that it wishes to make a part of this agreement, such terms must be provided at the time a quotation is requested and agreed to in writing by GLASSLINE, so that the costs of compliance to such terms as GLASSLINE may agree, if any, may be added to the bid. GLASSLINE reserves the right to quote these compliance features separately and above their standard quotation.

3. DELIVERY AND CLAIMS

- A. The quoted shipment schedule is non-binding. The shipment schedule will be set at time of order, and is contingent upon BUYER supplying a clear scope of supply, all technical information, and any required downpayment. A new delivery date may be required, depending on any technical or scope changes requested after the order date, or delays in receiving payments according to agreed dates.
- B. GLASSLINE shall not be liable for delays in delivery caused by any reason beyond GLASSLINE's control, including, but not limited to, force majeure, supplier failure, any interruption of GLASSLINE facilities, or any act of any government, or licensing authority.
- C. Unless otherwise noted in the quotation, all shipments are ex-works GLASSLINE Perrysburg, Ohio plant. BUYER bears all risks of loss or damage to the EQUIPMENT from the time the EQUIPMENT has been placed at the disposal of Buyer at GLASSLINE, whether shipping is arranged by BUYER or on behalf of BUYER by GLASSLINE. In any case, shipments shall be made strictly according to Incoterms 2000.
- D. After the EQUIPMENT is placed at the required transfer point for BUYER, GLASSLINE neither assumes responsibility for nor authorizes any expenses, including electrical work, plumbing, compressed air supply, millwright work, extensions/additions, or materials necessary for the set up and operation of the EQUIPMENT in BUYER's plant or elsewhere. It remains the BUYER's responsibility to meet all federal, state and local codes and regulations.
- E. Claims for shipping damage, concealed or otherwise, are the responsibility of BUYER and should be taken up with the delivering carrier within the stated time allowed for claims. Claims for shipping shortages will not be allowed, unless reported to GLASSLINE within 10 days of shipment.

4. TITLE

- A. Title to the EQUIPMENT, thus delivered, shall remain with GLASSLINE; until the full purchase price has been received.
- B. BUYER shall keep the EQUIPMENT fully insured, with GLASSLINE named as loss payee until the purchase price is paid. Neither BUYER nor GLASSLINE shall assign the applicable insurance contact without prior written consent of the other.
- C. Monthly interest, at the rate of 1-1/2% per month on the total unpaid value of the EQUIPMENT will be charged if delivery is delayed at BUYER's request for more than thirty (30) days after buy-off, or if final payment is delayed beyond thirty days (30) after shipment. BUYER shall execute and deliver to GLASSLINE such documents and financial statements as may be necessary to perfect the lien or security interest of GLASSLINE to protect the unpaid balance of the purchase price.

- D. All tools, materials, software, programs, designs, or any technology created for the purpose of producing the EQUIPMENT are the sole property of GLASSLINE, unless furnished by BUYER with the order. All intellectual property created by GLASSLINE shall remain property of GLASSLINE.

5. WARRANTY

- A. GLASSLINE warrants against defects in material and workmanship. Items manufactured by others but installed in or affixed to GLASSLINE EQUIPMENT are not warranted by GLASSLINE, but bear only such express warranties, if any, of the manufacturer thereof. GLASSLINE shall replace or repair at its choosing, (ex-works GLASSLINE Perrysburg, Ohio plant) any defective manufactured parts without charge to BUYER. The warranty does not apply to any labor charges for removal and/or replacement, or to any part thereof which has a life, under normal usage, inherently shorter than the warranty period. The warranty will be active for a period of:
 - 1) Machinery: 12 months from date of shipping.
 - 2) Replacement/Repaired parts: 6 months from date of shipping.
- B. Warranty shall be deemed waived by BUYER if:
 - 1) The EQUIPMENT is not properly installed by BUYER, according to GLASSLINE installation instructions.
 - 2) The EQUIPMENT has been subjected to misapplication or misuse, neglect, damaging conditions, or is modified in any way without written approval by GLASSLINE.
 - 3) The production or use of the EQUIPMENT for which it was not intended, or on products out of specification.
- C. The warranty set forth herein is in lieu of all other warranties, whether express, implied or statutory, including those of merchantability and fitness of any product for a particular purpose, and of any other obligation or liability on GLASSLINE's part of any kind or nature whatsoever.
- D. The warranty granted herein is non-transferable, and is granted only to the original BUYER.
- E. No employee, agent or other representative has any authority to waive, alter, vary or add to the terms hereof without prior approval in writing, signed by an officer of GLASSLINE.

6. LIMITATION OF LIABILITY

- A. It is expressly understood that GLASSLINE's liability for any damages arising out of or related to this transaction, or for its EQUIPMENT, whether in contract or in tort, is limited to the repair or replacement of the parts thereof as stipulated in the warranty, and is not to exceed the contract price in respect to which the claim is made.
- B. BUYER is solely responsible for ensuring the safety of all personnel who may be in close proximity to the EQUIPMENT.
- C. GLASSLINE will not be liable for any other injury, loss, damage or expense, whether direct, incidental or consequential, including but not limited to labor, loss of use, downtime, loss of material, products income, profit or production, or increased cost of operation, or spoilage of damage to material, arising in connection with the sale, installation, use of, or inability to use, or the repair or replacement of, or late delivery of, GLASSLINE EQUIPMENT.
- D. BUYER shall indemnify, defend and hold harmless GLASSLINE and its directors, officers, agents and employees, against any and all demands, claims, actions, damages, liabilities, costs, expenses (including reasonable attorney fees and expenses) and other losses of any kind whatsoever, whether based upon theories of contract, tort, negligence, strict liability, warranty, indemnification, contribution, statute or otherwise, for personal injury or property damage caused by BUYER or by any of its directors, officers, agents, employees or subcontractors, arising out of or relating to the Equipment Buyer shall give GLASSLINE prompt written notice of any such matters and the full opportunity to defend itself against them. This indemnity of BUYER shall survive the termination of this agreement.
- E. The remedies and limitations set forth in this agreement are the exclusive remedies for claims based upon any defect in or failure of EQUIPMENT, whether products or services, whether such claims are presented in contract or in tort (including negligence) and however and wherever instituted. Upon the expiration of the warranty period, all such liability shall terminate.

7. ORDER ACCEPTANCE

GLASSLINE reserves the right to refuse any order. An order shall be deemed accepted and a binding contract formed when the initial payment has been received and the order is acknowledged in writing by GLASSLINE.

8. CANCELLATION BY BUYER

BUYER may cancel the order for all or any EQUIPMENT by written notice prior to shipment. GLASSLINE will stop work on the order as soon as possible after receipt of written cancellation. BUYER agrees to pay GLASSLINE for all costs incurred by GLASSLINE and/or other suppliers attributed to the order, including but not limited to components, work-in-process, labor, burden and overhead. Such payment will not transfer title to BUYER.

9. ARBITRATION AGREEMENT

Any controversy or claim arising out of or relating to this agreement, or the breach thereof, shall be settled by arbitration in accordance with the rules of the American Arbitration Association and the statutes of the State of Ohio. All hearings held in connection with any such arbitration shall be held in Toledo, Ohio (unless the parties agree otherwise in writing), the award of the arbitrator(s) shall be final and binding upon the parties, and the judgment upon and the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.