



## AIR POWERED VACUUM CLIPPER

ITEM NUMBER \_\_\_\_\_

JOB NAME / NUMBER \_\_\_\_\_



### Cleveland Standard Features

- Single Station, automatic, hand activated System
- Able to handle random sizes and weights
- Vertical mounted Clipper with automatic Clip feeding mechanism, Safety shut-off Valve and Air Pressure Gauge
- Vacuum Pump and Controls Mounted in Stainless Steel Cabinet
- System complete with: Air Filter, Regulator and Pneumatic Lubricator
- Easy removable Waste Container
- Adjustable Clip crimping Control and Clipping Cycle
- One continuous Operation: draws Vacuum, gathers Casing Neck, clips and cuts Tailing
- Cabinet with adjustable Table Top, hinged Front and Side Doors

### Options & Accessories

- Casters
- Clips
- Labels

### Cleveland Standard Features

- Single station, hand activated vacuum packaging system
- Able to handle random sizes and weights
- Open base stainless steel cabinet
- Horizontal mounted Clipper
- Vacuum pump assembly complete with air filter, regulator and pneumatic lubricator
- Easily removable waste container
- Tabletop mounted Goose-neck pipe with vacuum nozzle and gauge

### Options & Accessories

- Casters
- Clips
- Labels

MODEL:  CVW



### Short Form Specifications

Shall be Cleveland Model CVW, Vacuum packaging system, Stainless Steel Cabinet, housing pneumatic Controls and On/Off Switch, vertical mounted Clipper with automatic Clip feeding, safety shut-off and Air pressure Gauge. Air Filter, Air regulator and pneumatic Lubricators. Cabinet with adjustable Table Top, and hinged front and side Doors.

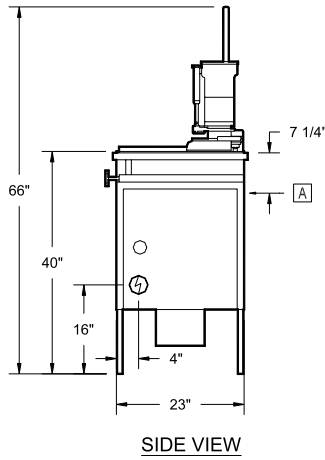
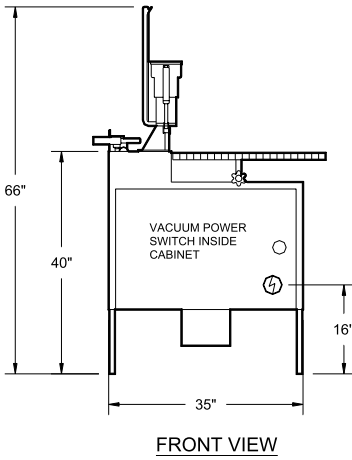
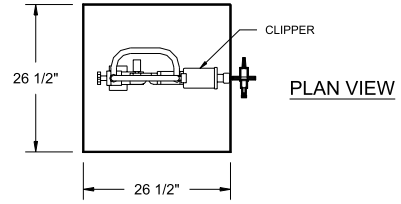
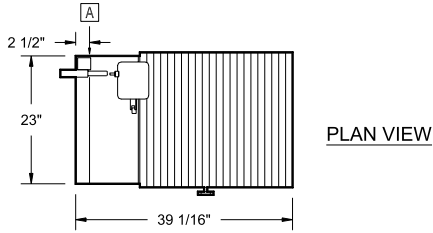
MODEL:  CV-E-8065



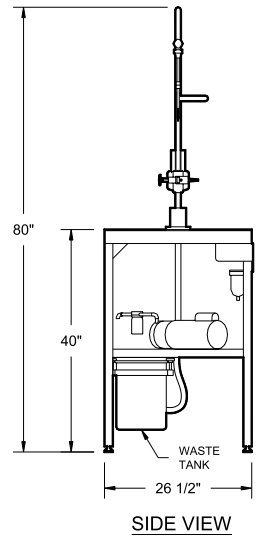
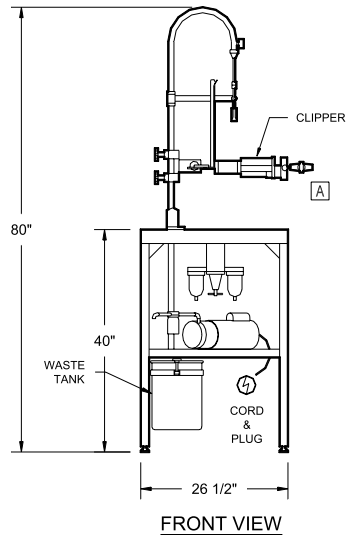
### Short Form Specifications

Shall be Cleveland Model CV-E-8065, Vacuum packaging system, Stainless steel open stand with vacuum pump, horizontal mounted clipper, goose-neck assembly with vacuum gauge and hand activated nozzle.

MINIMUM CLEARANCE	
FRONT	36"
SIDE	12"
REAR	12"



CVW



CV-E-8065

**UTILITIES**

MODEL	AIR	ELECTRICAL
	A	⚡
CVW	25 CFM, 90 to 110 PSI	120V/1PH – 10 amps cord and plug

MODEL	AIR	ELECTRICAL
	A	⚡
CV-E-8065	25 CFM, 90 to 110 PSI	120V/1PH – 10 amps cord and plug



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**CLIPPER VAC  
MODEL CVW  
MACHINE MANUAL**



# TIPPER TIE CLIPPER VAC MODEL CVW

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# TIPPER TIE CLIPPER VAC MODEL CVW

## CHAPTER 1

### **1.0 DESCRIPTION**

THE CLIPPER VAC, MODEL CVW, IS A VACUUM OPERATED PACKAGING MACHINE DESIGNED TO DRAW A VACUUM AND CREATE A SEAL USING TIPPER TIE CLIP CLOSURE TECHNOLOGY.

THE MACHINE IS DESIGNED TO ACCOMMODATE EITHER ONE OF THESE CLIPPERS TO MEET DIFFERENT PACKAGING REQUIREMENTS.

#### **AZ2100LM MODEL CLIPPER, USING Z200 SERIES CLIPS:**

Z201 CLIPS COVER 3 MIL BAGS, 6"-12" FLAT WIDTH

Z211 CLIPS COVER 3 MIL BAGS, 7"-16" FLAT WIDTH

#### **AZ4100LM MODEL CLIPPER, USING Z400 SERIES CLIPS:**

Z401 CLIPS COVER 3 MIL BAGS, 8"-18" FLAT WIDTH

Z411 CLIPS COVER 3 MIL BAGS, 10"-23" FLAT WIDTH

#### **FOR EACH MACHINE CYCLE THE MACHINE WILL:**

- A) *DRAW A VACUUM ON PACKAGE*
- B) *GATHER THE BAG NECK*
- C) *APPLY A SECURE VACUUM TIGHT CLIP*
- D) *TRIM EXCESS MATERIAL FROM BAG TAIL*

#### **MACHINE FEATURES:**

- A) *SIMPLIFIED VALVE DESIGN FOR FASTER CYCLING AND GREATER RELIABILITY*
- B) *MAXIMUM OPERATOR SAFETY, MACHINE COMPLETELY GUARDED*
- C) *TWO DIFFERENT CLIPPERS ARE AVAILABLE TO MEET MOST PACKAGING NEEDS*

### **1.1 APPLICATIONS**

THIS MACHINE IS IDEAL FOR PACKAGING A VARIETY OF PRODUCTS REQUIRING A VACUUM TIGHT SEAL. PRODUCTS INCLUDE, RED MEATS, PROCESSED MEATS, SMOKED MEATS, COOK-INS, CHEESES, POULTRY ETC.

# 1.2 MACHINE SPECIFICATIONS

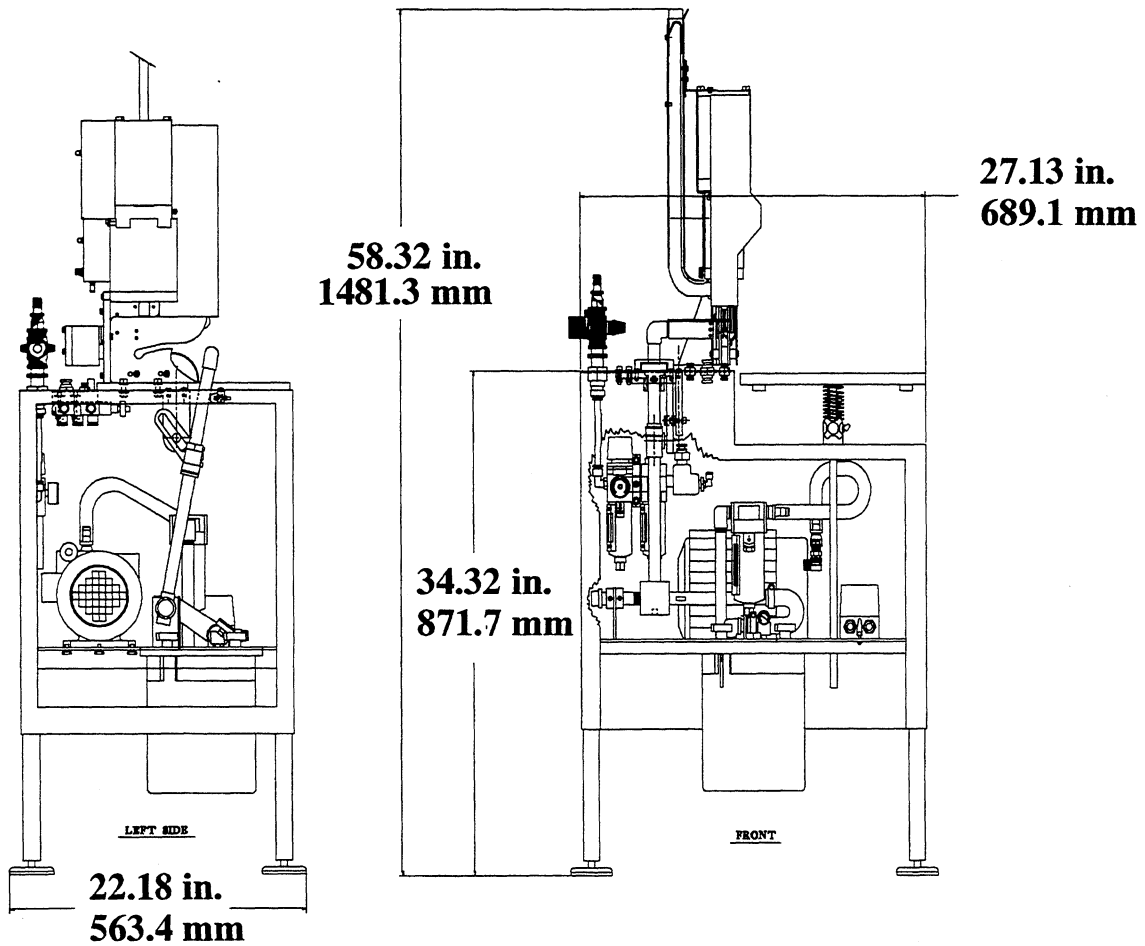
**AIR CONSUMPTION .....12 CFM @ 80 PSI  
(340 LITERS @ 5.5 BAR)  
AT 20 CYCLES PER MINUTE**

## **ELECTRICAL REQUIREMENTS:**

**WITHIN USA:  
110 volts: 50/60 Hz  
Amps (full load) 6**

**WITHIN EUROPEAN UNION:  
220 volts: 50 Hz  
Amps (full load) 3.2**

**SHIPPING WEIGHT..... 250 lbs (113.4 kg)**



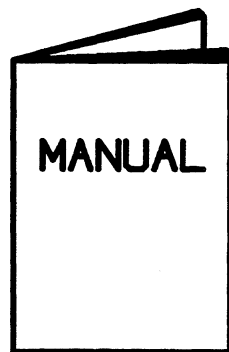
# SAFETY INSTRUCTIONS<sup>7</sup>

## READ FIRST!!!

WHEN USING THIS MACHINE, ALL OPERATING INSTRUCTIONS, SAFETY INSTRUCTIONS, AND PRECAUTIONS, MUST BE STRICTLY FOLLOWED.

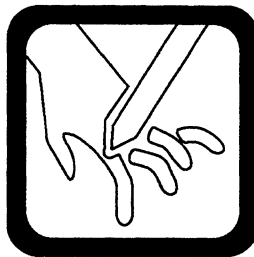
## DO NOT

INSTALL, SET-UP, OR OPERATE THIS MACHINE UNTIL YOU HAVE READ AND UNDERSTOOD THIS MANUAL



READ  
FIRST!!

**FOLLOW ALL WARNING SYMBOLS:**



# TIPPER TIE CLIPPER VAC MODEL CVW

## CHAPTER 2 SAFETY INSTRUCTIONS:

### SECTION 2.1

**I) WARNING:** When using this machine, all operating instructions, safety instructions, and precautions must be strictly followed and adhered to. Do not attempt to install, set-up, or operate this machine until you have read and understood this manual. Follow all warnings and safety instructions in this manual.

**II)** Keep hands and fingers clear of Gate, Punch, and Die areas at all times. Never touch these areas while the machine is in operation or while being moved.

**III)** Before any maintenance, servicing, adjusting, or cleaning of this machine the **main air supply** and **all electrical power** must be **disconnected!!**

**IV)** All guards, protective covers and shields must be in place before operating this machine. Operating this machine with guards, covers, and shields removed will result in serious injury. **NEVER OPERATE WITH SAFETY DEVICES REMOVED !!**

**V)** When this machine is not in operation, the air supply must be disconnected at the plant/regulator junction or at the "Quick Disconnect" on the machine. Failure to disconnect the air supply from this machine creates serious risk of Injury to yourself and others. The ALLEN-BRADLEY MOTOR STARTER MUST BE TURNED OFF from inside the cabinet.

**VI)** Electrical operated devices, (motors, vacuum pumps, etc.) **must be turned-off and locked-out** before servicing. Be aware of the **danger of electrical shock!!** Failure to disconnect creates series risk of injury to yourself and others.

# **SAFETY INSTRUCTIONS, CONTINUED**

## **SECTION 2.2**

### **SAFETY INSTRUCTIONS PER THE EUROPEAN DECLARATION OF CONFORMITY.**

#### **WITH THE USE OF THIS MACHINE THE FOLLOWING BASIC SAFETY PRECAUTIONS HAVE TO BE OBEYED**

- A)** Before installation and first operation, read and follow the manual.
- B)** Check everyday, before production begins, correct operation of all safety devices.
- C)** Any malfunction must be reported immediately to persons in charge.
- D)** Malfunctioning safety devices should be exchanged or repaired immediately. Working instructions should be issued for safe operation.
- E)** Safety devices must be checked regularly for proper functioning. And at least once a year checked by experts on proper operation.
- F)** The machine must be operated by only trained personnel. With training being repeated at regular intervals.
- G)** The cleaning methods outlined in this manual must be followed meticulously and completely.
- H)** Use only original spare parts and accessories.
- J)** When the machine is sold, the manual should also be supplied to the new owner.

## **CHAPTER 3**

### **3.1 DELIVERY AND INSPECTION:**

Upon delivery, inspect the shipping container and equipment for damages due to shipping and handling. If damage is found or suspected, contact the shipping agent immediately. In order that the carrier may have an opportunity to inspect goods and thereby properly verify claims, any loss or damage discovered after delivery should be reported to the agent of the delivering line immediately or within 15 days after receipt of goods.

In many instances, the original container is not opened and the contents not examined before reshipment to final destination. Therefore, under (**SUBPART C: CLAIMS FOR LOSS OR DAMAGE: SECTION 1226.200 NATIONAL MOTOR FRIGHT CLASSIFICATION**), 9 months are allowed for filing claims for loss or damages.

The shipping agent or carrier will help you in processing your claim. Remember to report all suspected damages immediately.

If additional assistance is required, **TIPPER TIE** will gladly help in settling your claim. However, first contact the carrier or his agent involved.

#### **WITH ALL CORRESPONDENCE, INCLUDE THE FOLLOWING:**

1. ORIGINAL BILL OF LADING OR COPY THEREOF. \*
2. VENDOR INVOICE, OR CERTIFIED COPY, WHEN CLAIM IS BASED ON WEIGHT OR VALUATION OF SHIPMENT HAS BEEN IMPROPERLY DESCRIBED.
3. CATALOG PAGES OR PRODUCT INFORMATION.
4. ORIGINAL PACKING SLIP OR RECEIVING REPORTS  
\* OR COPY OF ELECTRONIC BILL OF LADING MANIFEST.

### **3.2 UNPACKING EQUIPMENT**

For ease of shipping, some components will need the addition of operating oils and fluids before the equipment can be operated.

#### **CHECK THE ACCESSORY LIST FOR THESE COMPONENTS.**

Notify **TIPPER TIE** immediately if any component is missing, or if additional assistance is required. Also always refer to the installation and operating instructions before starting to operate the equipment. **Add all required oils and fluids and make all machine adjustments as instructed before starting machine. Failure to do so may result in equipment damage, or injury, voiding product warranty.**

## **CHAPTER 4**

### **AIR CONNECTIONS:**

#### **SECTION 4.1**

**(SEE FIGURE 2.0)**

**FOR INSTALLATION WITHIN THE EUROPEAN UNION, PLANT AIR SUPPLY MUST NOT BE ABOVE 6 BAR (87 PSI)**

- I) Clipper working pressure is between 3 and 6 BAR (43.5 AND 87 PSI)**
- II) Recommended air pressure setting is 5.5 BAR (80PSI)**
- III) Before operating, check air line connections as set at factory. If lines have become disconnected, reassemble as shown per pneumatic schematic.**
- IV) Air pressure can be regulated from the air regulator assembly. The air regulator assembly consists of filter, regulator, and oiler. Please note incoming air direction. (plant air flow) The air regulator unit is located inside the cabinet, under the **QUICK-DISCONNECT AND RED LOCK-OUT VALVE**, mounted on the outside top surface of the machine. The cabinet doors can be easily opened and removed for servicing. Always replace and close cabinet doors before operating.**

#### **SECTION 4.2**

### **ADJUSTMENT AND LUBRICATION:**

- A) Lubricator oil flow is adjusted by turning the front needle valve. By turning counter-clockwise, the oil drop rate will increase. Turning clockwise will decrease oil flow.**
- B) To regulate air pressure, pull the locking type adjustment knob away from the body of the regulator until the orange band is visible. Rotate knob to regulate air pressure (clockwise to increase pressure / counter-clockwise to decrease the pressure). When adjustment is complete, push the knob back to the body of the regulator.**

## CHAPTER 4 CONTINUED:

### **WARNING:** (SEE FIGURE 2.0)

**DO NOT SET AIR PRESSURE ABOVE 6.8 BAR (100 PSI)  
CHECK THE AIR PRESSURE GAUGE!! SERIOUS INJURY AND  
DAMAGE WILL RESULT IF THE MACHINE IS OPERATED  
ABOVE THIS AIR PRESSURE.**

**C) Change filter elements after one (1) year of service or when the air pressure drops to 1kg/cm sq. [1.03 BAR (15PSI)].**

**D) Recommended lubrication: ISO VG32**

**E) For additional information on filter / regulator / lubricator servicing, FOLLOW THE MANUFACTURES INSTRUCTION SHEET, INCLUDED AT THE BACK OF THIS MANUAL.**

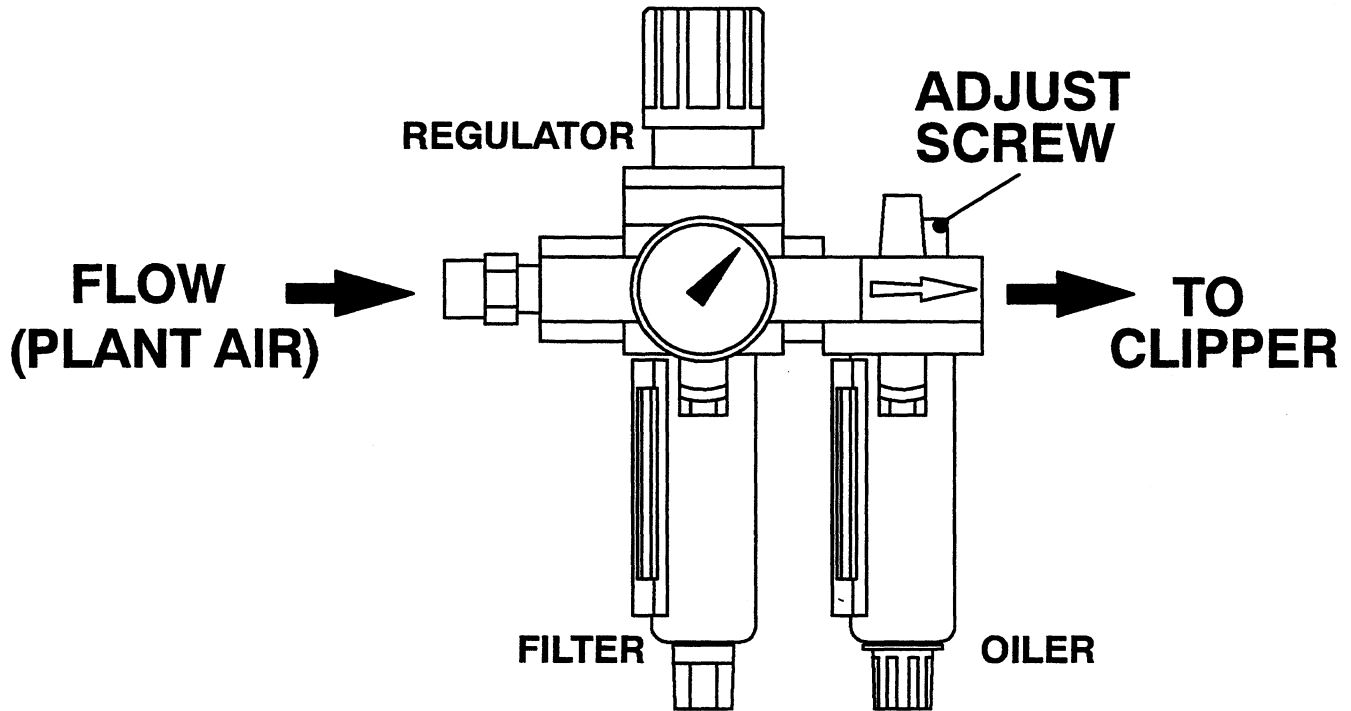
### **WARNING: DO NOT USE POLYCARBONATE BOWL ON FILTER / LUBRICATOR / REGULATOR**

The polycarbonate bowls may be damaged and possibly fail if exposed to synthetic oils, thinner solvents, trichlorethylene, kerosene and other aromatic hydrocarbons. Therefore a **metal bowl** rather than polycarbonate is recommended.

### **WARNING:**

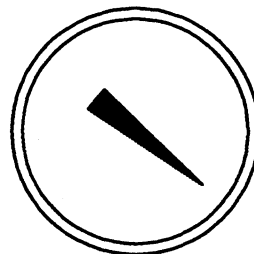
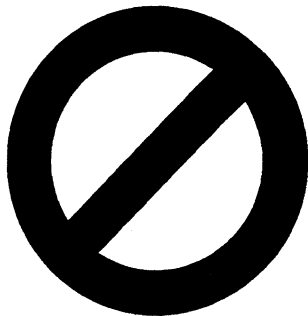
The lubricator cannot be refilled under pressure. Always **shut off** the air pressure supply and purge pressure from the system before refilling with lubricating fluids.

**RECOMMENDED  
SETTING  
5.5 BAR  
(80 PSI)**



**WORKING PRESSURE  
IS BETWEEN  
3 TO 6 BAR  
(43.5 P.S.I.) (87 P.S.I.)**

**WARNING: DO NOT SET AIR PRESSURE  
ABOVE 6.8 BAR  
(100 PSI)**



## **CHAPTER 5**

### **MACHINE OPERATION**

#### **SECTION 5.1**

##### **AIR ADJUSTMENT**

The air regulating unit is located inside the **CLIPPER VAC** cabinet, under the **RED LOCK-OUT VALVE AND QUICK-DISCONNECT JUNCTION**.

- A) Connect the factory air coupling onto the machine at this junction.
- B) With air regulator **TURNED-OFF**, inside cabinet, slowly **TURN-ON** the **RED LOCK-OUT VALVE**.
- C) Adjust the air regulator to **5.5 BAR (80 PSI)** as outlined in **CHAPTER 4**.
- D) Listen for any air leaks around machine before continuing, correct as required before starting machine.

#### **SECTION 5.2**

##### **VACUUM PUMP**

The **TIPPER TIE CLIPPER VAC** uses the **BUSCH INCORPORATED, MODEL RB0006** Single stage rotary vacuum pump. (2 Torr end pressure)

#### **SECTION 5.2.1**

##### **ELECTRICAL REQUIREMENTS, VACUUM PUMP CONTINUED:**

<b>WITHIN THE USA:</b>		<b>WITHIN THE EUROPEAN COMMUNITY:</b>	
<b>VOLTS:</b>	<b>110</b>	<b>VOLTS:</b>	<b>220</b>
<b>Hz</b>	<b>50/60</b>	<b>Hz</b>	<b>50</b>
<b>HP/kw</b>	<b>.5/.37</b>	<b>HP/kw</b>	<b>.5/.37</b>
<b>Amps (full load)</b>	<b>6</b>	<b>Amps (full load)</b>	<b>3.2</b>
<b>RPM</b>	<b>3240</b>	<b>RPM</b>	<b>3240</b>

ALL ELECTRICAL CONNECTIONS SHOULD BE MADE BY QUALIFIED, COMPETENT ELECTRICIANS IN ACCORDANCE WITH ALL LOCAL AND NATIONAL CODES.

For additional electrical requirements, refer to the **BUSCH, OPERATING AND MAINTENANCE MANUAL**, provided.

## SECTION 5.2.2 LUBRICATION SYSTEM: VACUUM PUMP CONTINUED:

Before operating the machine, check the **BUSCH VACUUM PUMP** for operating oils. For ease of shipping, the vacuum pump may need the addition of operating oils. Refer to the **BUSCH VACUUM PUMP MANUAL** for correct oil level and filling procedure.

**INSPECT THE OIL SIGHT GLASS FOR CORRECT OIL LEVEL BEFORE STARTING MACHINE AFTER UNPACKING.**

### OIL TYPE AND QUANTITY:

PER PUMP MANUFACTURES RECOMMENDATIONS:

**BUSCH R-580 VACUUM PUMP OIL OR: SAE 20 non-detergent oils**

For additional information refer to PUMP OPERATORS MANUAL.

Upon starting vacuum pump, check for vacuum leaks around all hose connections. Refer to pump operators manual for additional information and trouble shooting guide.

**SECTION 5.3 MOTOR STARTER:** The **CLIPPER VAC** is equipped with an **ALLEN-BRADLEY MOTOR STARTER**, located inside the cabinet, along side the vacuum pump. The starter provides protection against circuit failure. To start the vacuum pump, push the starter button. Starter tripping is an indication that there is a problem with the motor, circuit or the starter. The cause must be investigated and corrected.

### ALLEN-BRADLEY MOTOR STARTER MODEL NUMBERS:

WITHIN THE USA

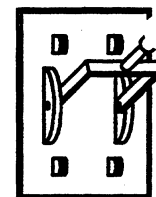
**MODEL # 140MN-1000**

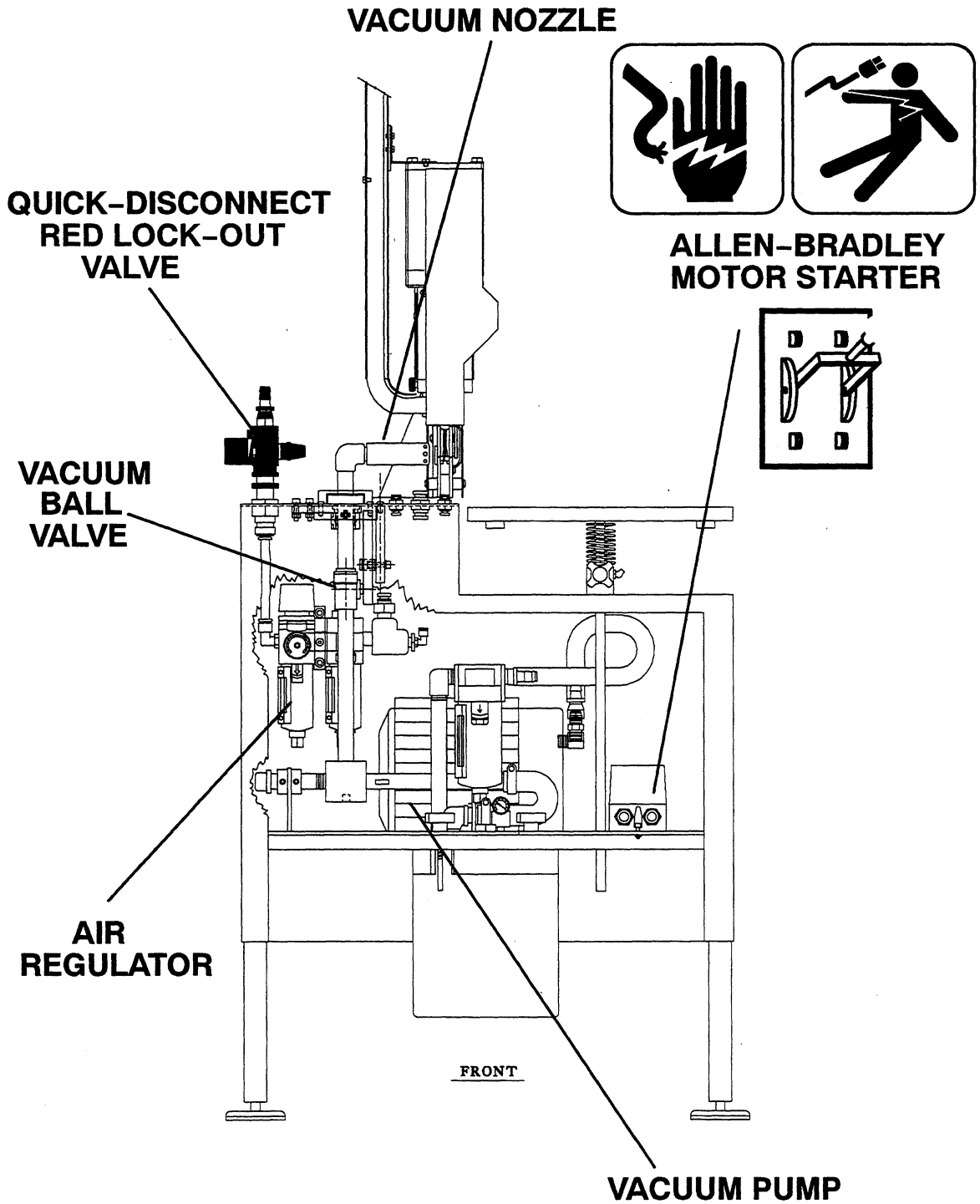
**110 VOLTS, 6-10 AMPS**

WITHIN THE EUROPEAN COMMUNITY

**MODEL #140-MN-0400**

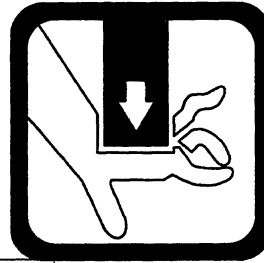
**220 VOLT, 2.4-4.0 AMPS**





## CHAPTER 6 VACUUM NOZZLE OPERATION:

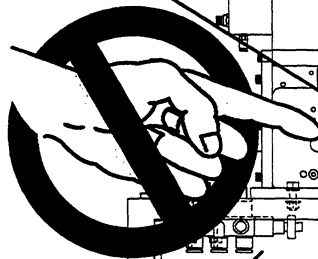
**DANGER AREAS:**  
WHILE OPERATING MACHINE  
NEVER PLACE FINGERS NEAR  
OR THROUGH THE SLOT IN  
CLIPPING AREA, OR HANDS  
INTO OR AROUND THE GATE  
AREA. SERIOUS INJURY  
MAY RESULT!!!



**NEVER  
OPERATE  
WITH  
GUARDS  
REMOVED!**

**CLIPPER  
GATE  
GUARD**

**WARNING:  
KEEP  
AWAY  
FROM  
GATE  
AREA**



**MOVE  
FORWARD  
TO DRAW  
VACUUM**

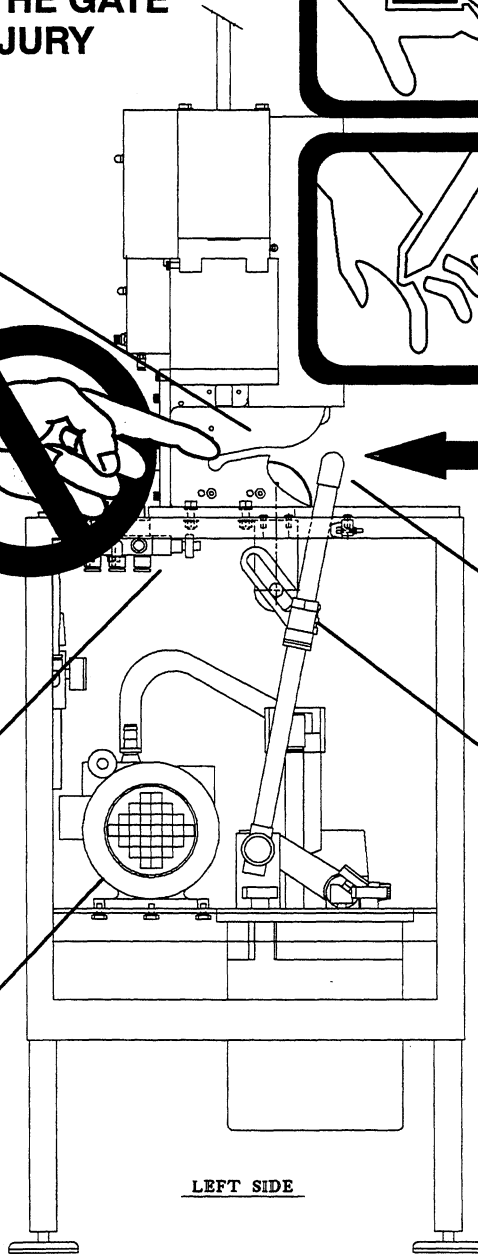


**VACUUM  
NOZZLE**

**VACUUM  
BALL  
VALVE**

**CLIPPER  
GATE  
VALVE**

**VACUUM  
PUMP**



LEFT SIDE

**CHAPTER 5 & 6  
VACUUM OPERATION  
MACHINE OPERATION**

## **CHAPTER 6**

### **OPERATION, PRODUCT PACKAGING**

#### **SECTION 6.1**

#### **VACUUM NOZZLE OPERATION:**

**DANGER!!** While operating machine, never place fingers near or through the slot in clipping area, or hands into or around the gate area. **SERIOUS INJURY MAY RESULT! DO NOT OPERATE WITH GUARDS REMOVED!**

**A)** Place neck of the product to be sealed around the vacuum nozzle.

**B) MANUALLY MOVE** the vacuum tube nozzle assembly forward. As the nozzle unit moves, the activating lever under the cabinet opens the **BALL VALVE**, connected to the vacuum pump. The nozzle assembly starts to draw a vacuum on the package, preparing it for clipping and sealing.  
(THE BALL VALVE IS NORMALLY CLOSED AS THE VACUUM PUMP OPERATES.)

**C)** Continue to move the nozzle assembly forward until end of stroke, (vacuum continues to be drawn on package).

**D)** As the product moves forward with the nozzle, the bag tail slides into the clipper gate assembly.

**E)** At the maximum forward stroke, the CLIPPER GATE VALVE, under the cabinet is activated, firing the clipper thru its cycle.

#### **SECTION 6.2**

#### **CLIPPER OPERATION**

When the GATE VALVE IS CLOSED, the gate cylinder pressurizes, closing the front gate. The punch drives down, taking a clip from the magazine rail, continuing to the clip forming die, completing the closure.

After the package is vacuum sealed and clipped, the trimming knife from the clipper extends to cut-off extra bag tail.

(FOR ADDITIONAL INFORMATION AND CLIPPER SERVICING REFER TO THE CLIPPER MANUAL)

#### **SECTION 6.3**

#### **UNIT RECYCLES**

When the nozzle assembly is manually returned to HOME POSITION, the clipper resets. KNIFE RETRACTS, GATE OPENS, CLIPPER PUNCH RETRACTS. and the VACUUM VALVE CLOSES. The unit is ready for another packaging cycle.

## **CHAPTER 7 MAINTENANCE:**

### **CLEANING 7.1**

After use of machine, the clipper must be cleaned to remove all residues (food products) from the gate, punch, knife and die areas. Also check all other machine surfaces and surrounding work station for material residues or contamination. All surfaces must be cleaned using the recommended materials and procedures as outlined by the **U.S. DEPARTMENT OF AGRICULTURE FOOD AND INSPECTION SERVICE HANDBOOK NO. 562**. A copy of **PART 5, SECTION 5.1, TITLED: CLEANING COMPOUNDS:** is included with this manual. **NOTE: CLEANING PRODUCT APPROVAL, IN WRITING IS REQUIRED, AS OUTLINED IN THE COPY PROVIDED.**

- A)** Turn off factory air "**RED LOCK –OUT VALVE**" and disconnect the air lines from the cabinet with the "**Quick disconnect**" attached.
- B)** Turn-off the **ALLEN-BRADLEY MOTOR CONTROLLER**, inside the cabinet, next to the **BUSCH** vacuum pump.

#### **REMEMBER TO:**

**ALWAYS PROTECT ALL ELECTRICAL CONNECTIONS, PUMP MOTOR AND VACUUM LINES FROM WATER AND CLEANING FLUIDS!!**

- C)** With the gate open remove all guards to expose all surfaces for cleaning.
- D)** Clean all surfaces as outlined by the **U.S. DEPARTMENT OF AGRICULTURE HANDBOOK**.
- E)** After cleaning, (**FDA food contact approved**) light mineral should be applied to the gate pivot areas. The internal moving parts are lubricated by the filter / regulator / lubricator.
- F)** After cleaning and lubricating, reassemble all guards and check for safe function. Check for and tighten all loose connections and screws.
- G)** While cleaning the **CLIPPER VAC**, inspect for worn or damaged components needing replacement. For replacement parts refer to the list of recommended spare parts, and assembly drawing. Before returning machine to operation check for burrs around die pocket; remove.

## **CLEANING: 7.2 VACUUM LINES AND WASTE STORAGE TANK**

Along with cleaning the outer surfaces of the machine, the vacuum system should be cleaned and purged daily.

The vacuum system and waste storage tank mounted in the machine cabinet must be cleaned using only the approved cleaning solutions as outlined.

### **Follow all cleaning procedures described.**

- Turn on the vacuum system, and move the vacuum nozzle forward until vacuum is applied. Attach a plastic bag containing approved cleaning solution to the vacuum nozzle, purge until the system is clean. Continue to flush out the vacuum system with clear potable water to remove all cleaning solution residues.
  
- Remove the waste tank, drain and clean. Continue flushing with clear potable water. Leave the tank unattached until the machine is ready to be used again. Let the waste tank air dry along with the vacuum system.
  
- When reattaching the waste storage tank and before using machine, always check the gasket seal, vacuum lines and vacuum nozzle for leakage.

**APPROVED CLEANING COMPOUNDS:  
U.S. DEPARTMENT OF AGRICULTURE  
FOOD SAFETY AND INSPECTION SERVICE  
(REFERENCE AGRICULTURE HANDBOOK NO. 562)**

**THIS PUBLICATION IS INTENDED TO ASSIST IN APPLYING APPROVED CLEANING METHODS UNDER THE USDA MEAT AND INSPECTION PROGRAM. CLEANING MATERIALS USED MUST BE IN COMPLIANCE WITH THE USDA. COMPLIANCE WITH THE REQUIREMENTS SET FORTH IN THE PUBLICATION DOES NOT, IN ITSELF CONSTITUTE AUTHORIZATION. USERS MUST SUBMIT APPLICATION WITH THE USDA FOR CONSIDERATION OF SUITABILITY OF PREPARATIONS AND THEIR SAFETY FOR USE AS DIRECTED.**

**SEND REQUESTS FOR SUCH EVALUATION TO :**

**COMPOUNDS EVALUATION UNIT, CPS  
PRODUCT SAFETY BRANCH  
FOOD INGREDIENT ASSESSMENT DIVISION, SCIENCE, FSQS  
U.S. DEPARTMENT OF AGRICULTURE  
BUILDING 396, ROOM 300, BARC-EAST  
BELTSVILLE, MD 20705 TEL (301) 344-2566**

**SECTION 5.1 – CLEANING COMPOUND**

**(A) GENERAL USE CRITERIA**

(1) NEUTRAL OR MILDLY ALKALINE PREPARATIONS CONSISTING OF ANY COMBINATION OF SOAPS, DETERGENTS, WETTING AGENTS, EMULSIFIERS, SOLUBILIZERS, AND COMMON INORGANIC BUILDERS MAY BE USED ON ANY SURFACE IN ANY DEPARTMENT

(2) STRONGLY ALKALINE PREPARATIONS (THOSE CONTAINING IN EXCESS OF 20 PERCENT CAUSTIC SODA OR OTHER INGREDIENTS WITH THE EQUIVALENT CAUSTICITY THEREOF) MAY BE USED ONLY IN SOAK TANKS OR WITH STEAM OR MECHANICAL CLEANING DEVICES IN ANY DEPARTMENT

(3) ACIDIC PREPARATIONS CONSISTING OF MINERAL ACIDS, ORGANIC ACIDS, OR ACIDIC SALTS MAY BE USED IN ANY DEPARTMENT FOR THE REMOVAL OF RUST, CORROSION, SCALE, OR OTHER DEPOSITS WHICH ARE NOT READILY REMOVED BY ALKALINE PREPARATIONS.

**PAGE 2:****(B) RESTRICTIONS OF USE**

(1) BEFORE USING ANY CLEANING PREPARATION, FOOD PRODUCTS AND PACKAGING MATERIALS MUST BE REMOVED FROM THE ROOM OR CAREFULLY PROTECTED. AFTER USING SUCH PREPARATIONS, ALL SURFACES MUST BE THOROUGHLY RINSED WITH POTABLE WATER.

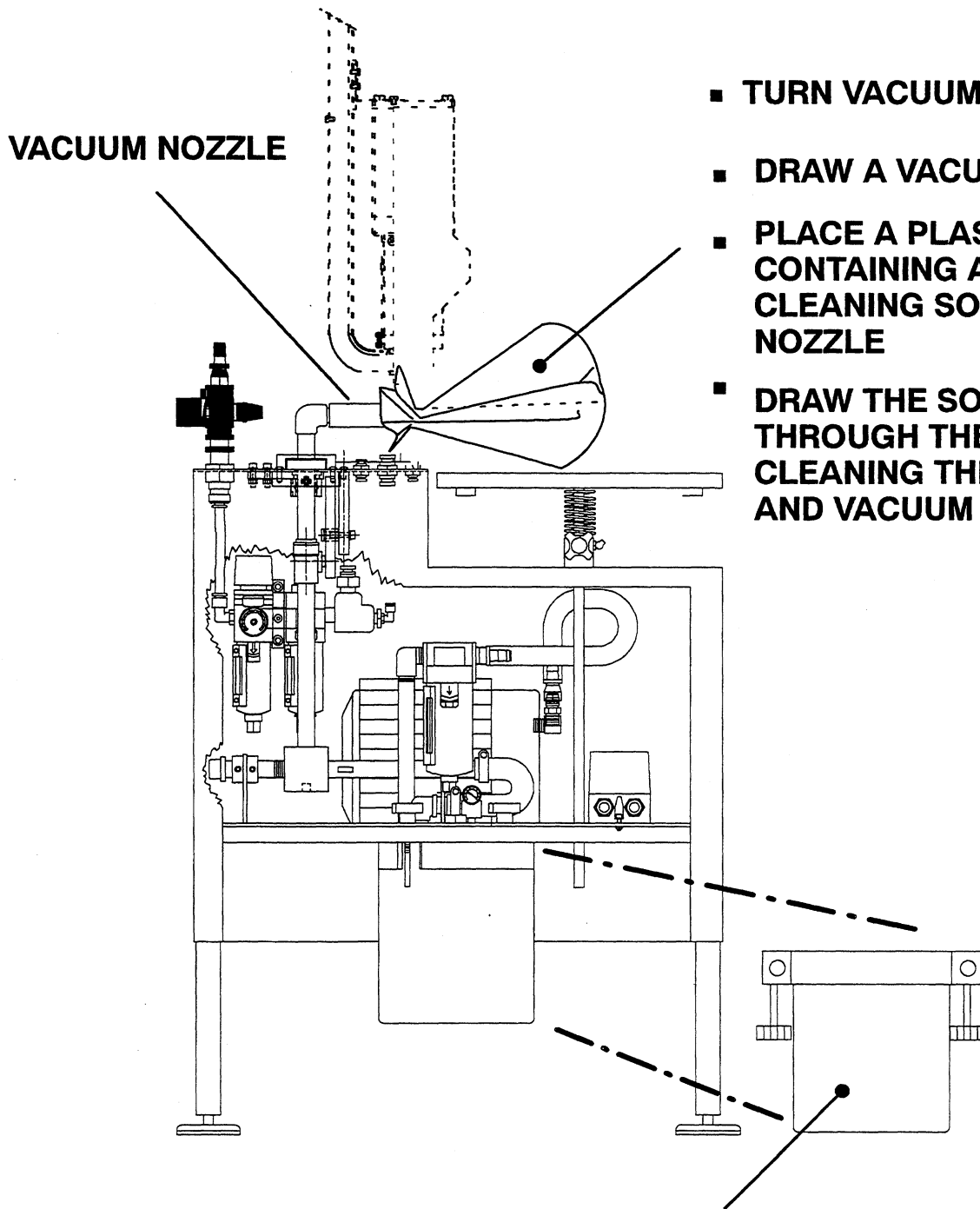
(2) PREPARATIONS HAVING A CHARACTERISTIC ODOR OF FRAGRANCE AS DILUTED FOR USE MAY, IN THE OPINION OF THE USDA, INTERFERE WITH SANITARY INSPECTION OF FOOD CONTACT SURFACES MAY NOT BE USED ON FOOD CONTACT SURFACES. THEY MAY BE AUTHORIZED FOR LIMITED USE ON FLOORS AND WALLS ONLY.

(3) PREPARATIONS CONTAINING ABRASIVE MATERIALS SUCH AS SILICA, PUMICE, ETC. MAY BE USED ON FOOD CONTACT SURFACES ONLY IF CARE IS TAKEN TO REMOVE ALL ODORS OR RESIDUES RESULTING FROM THEIR USE BY THOROUGH RINSING WITH POTABLE WATER.

(4) BORIC ACID AND SALTS THEREOF, MAY BE USED IN SUCH PREPARATIONS ONLY AT CONCENTRATIONS UP TO 90 PERCENT IN ASSOCIATION WITH STRONG ACIDS, STRONG ALKALIS, SOAPS, OR SYNTHETIC DETERGENTS.

# CHAPTER 7

## CLEANING OF VACUUM SYSTEM AND WASTE STORAGE TANK



- TURN VACUUM SYSTEM ON
- DRAW A VACUUM ON SYSTEM
- PLACE A PLASTIC BAG CONTAINING APPROVED CLEANING SOLUTION ON NOZZLE
- DRAW THE SOLUTION THROUGH THE SYSTEM CLEANING THE NOZZLE AND VACUUM LINES

**AFTER CLEANING-OUT VACUUM LINES, REMOVE WASTE TANK, EMPTY AND CLEAN. LEAVE UNATTACHED AND OPEN TO AIR DRY UNTIL MACHINE IS READY TO BE USED AGAIN.**

# **MAINTENANCE CONTINUED:**

## **SECTION 7.3**

### **TROUBLE SHOOTING GUIDE**

#### **NO POWER**

##### **CHECK AIR SUPPLY**

- A) CONNECTIONS**
- B) REGULATOR, TURNED OFF**
- C) WATER IN SYSTEM**

##### **CHECK MOTOR STARTER / ELECTRICAL SUPPLY**

- D) NOT TURNED ON**
- E) STARTER TRIPPING ( CHECK FOR CIRCUIT FAILURE, BAD CONNECTIONS)**

#### **NO VACUUM / POOR VACUUM / DOES NOT SHUT OFF**

- A) VACUUM PUMP TURNED OFF ( TURN ON)**
- B) VACUUM PUMP, MOTOR STARTER TRIPS OFF (CHECK FOR CIRCUIT FAILURE)**
- C) VACUUM PUMP LOW ON LUBRICATING OIL (CHECK )**
- D) VACUUM LINES DISCONNECTED OR LOOSE (CHECK AND CORRECT)**
- E) CHECK BALL VALVE, NOZZLE ASSEMBLY ( CHECK VALVE AND LINKAGE)**

#### **RUNNING SLOWLY**

- A) WATER IN SYSTEM ( DRAIN AND CHANGE FILTER)**
- B) MUFFLER STOPPED UP ( REPLACE)**
- C) PRESSURE LOW (CHECK PRESSURE SETTING)**
- D) PINCHED AIR LINES ( REPLACE)**

#### **CLIPPER / NOT FUNCTIONING OR POOR CLIPPING**

- A) CHECK CLIPPER GATE VALVE IN CABINET**
- B) CHECK AIR SUPPLY (CONNECTIONS, AIR PRESSURE SETTING)**
- C) CHECK FORWARD STROKE OF VACUUM NOZZLE ASSEMBLY  
( CHECK FOR GATE VALVE TRIPPING)**

**FOR ADDITIONAL CLIPPER TROUBLE SHOOTING, REFER TO THE CLIPPER MANUAL.**

# CHAPTER 8

## SECTION 8.1

### RECOMMENDED SPARE PARTS CLIPPER VAC CABINET

GATE VALVE	QTY: (1)	21-0259
MOTOR STARTER	QTY: (1)	
	IN USA:	30-0298
	IN EUROPE:	30-0299
FILTER ELEMENT:	QTY: (1)	24-0045

### RECOMMENDED SPARE PARTS CLIPPER ASSEMBLY

**(REFER TO CLIPPER MANUAL)**

#### WHEN ORDERING REPLACEMENT PARTS INCLUDE:

*MACHINE MODEL NUMBER*

*DATE OF PURCHASE*

*PART NUMBER OR NUMBERS IDENTIFYING REPLACEMENT*

*PARTS AS MARKED ON THE PARTS OR SHOWN ON THE ASSY.*

*PARTS LISTINGS*

#### ORDER FROM:

TIPPER TIE INC.

P.O. BOX 866, LUFKIN ROAD

APEX, N.C. 27502-0866

(919) 362-8811 OR 1-800-331-2905

FAX: 919-362-8667

**CHAPTER 8 CONTINUED:  
SECTION 8.2**

**ACCESSORY PARTS LIST:**

WHITE OIL (TIPPER TIE # 24-9930) OILER/REGULATOR/FILTER

MINERAL OIL (FDA APPROVED): GENERAL LUBRICANT

VACUUM PUMP OIL BUSCH PART #R-580

**CHAPTER 9  
ASSEMBLY DRAWING:  
SECTION 9.1**

DRAWING NO. CVW (ASSEMBLY):