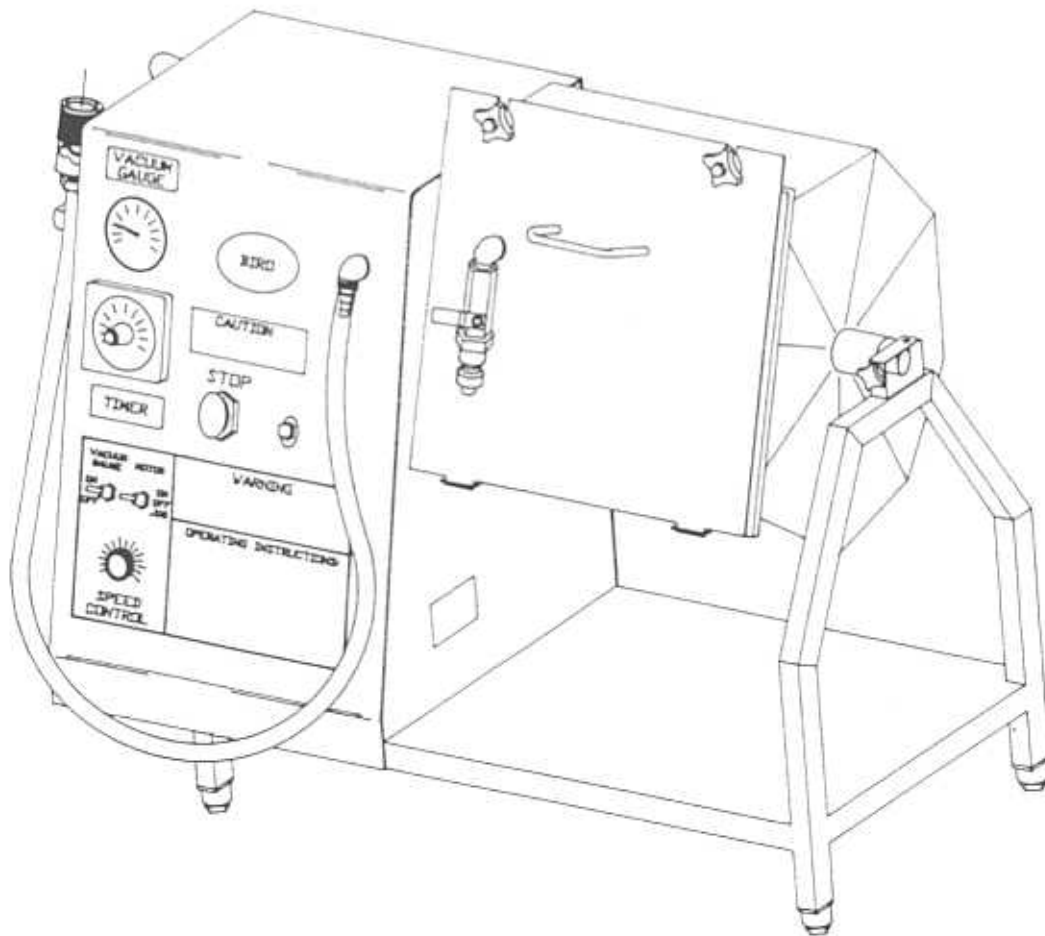


BIRO

MODEL VTS-50R VACUUM TUMBLER WITH REMOVABLE DRUM OPERATION MANUAL & PARTS LIST



The **BIRO VTS-50R VACUUM TUMBLERS** are versatile machines used for vacuum tumbling all types of meats with one of the "BIRO BLEND" brand blends of herbs and spices. All marinades are FDA approved and meet F.S.I. standards. The **BIRO VTS-50R** produces equally impressive results with beef, pork, poultry and fish.

All marinades have instructions for twenty-five (25) pound loads, which is the maximum recommendation for proper tumbling. Any amount beyond twenty-five (25) pounds may take away the benefits of tumbling, and proper marinating might not be achieved.

The units are both easy to clean and maintain as well as sanitary in design and construction. The entire machine is built to give many years of trouble free service while providing a unique line of marinated products for your customers.

SAFETY TIPS



ROTATING DRUM

TO AVOID SERIOUS PERSONAL INJURY

NEVER Touch This Machine Without Training and Authorization By Your Supervisor.

ALWAYS Read Operation and Service Manual BEFORE Operating, Cleaning or Servicing.

ALWAYS Keep Hands Clear of the Rotating Drum and Other Moving Parts.

NEVER Attempt to Remove the Drum Lid Unless Vacuum Has Been Released.

NEVER Operate Vacuum Pump Unless Properly Connected to Tumbler Drum.

*ONLY Operate Vacuum Pump in Recommended Vacuum Range (15-20 Inches of Mercury)
NEVER TO EXCEED 20 INCHES Hg.*

DO NOT Store the Unit in Meat Cooler.

ONLY Use a Qualified Electrician to Install According to Local Building Codes: Machine MUST Be Properly Grounded.

ONLY Install on Level, Non-Skid Surface in a Clean, Well-Lighted Work Area Away From Children and Visitors.

DO NOT Allow Food Particles, Liquids or Any Other Foreign Material to Enter the Vacuum Pump or Vacuum Hose.

ALWAYS Turn Off, Unplug From Power Source and Perform Lockout/Tagout Procedure to This Machine BEFORE Cleaning or Servicing.

NEVER Leave Machine Unattended While Operating.

PROMPTLY REPLACE Any Worn or Illegible Warning and/or Instruction Labels.

USE ONLY BIRO Parts and Accessories Properly Installed.

B. TO PROCESS PRODUCT

1. Weigh product to be vacuum tumbled.
2. Refer to ingredient chart for proper amount of BIRO BLEND marinade seasoning and water.
3. Use jog switch to position drum opening upright.
4. Place product, marinade and water into tumbler drum.
5. Install gasket on drum lid and place lid on drum and secure with two lock knobs.
6. Connect vacuum hose to valve on drum. Be sure valve handle is in the open position, Parallel with the valve body.
7. Turn vacuum pump to "ON". (Vacuum gauge will start indicating a vacuum is being pulled in the drum.) If needle in vacuum gauge does not indicate vacuum is being pulled, turn "OFF" vacuum pump and disconnect vacuum hose from drum lid. Remove drum lid and check that the lid gasket is properly installed and seated.
8. When vacuum gauge does indicate that a vacuum is being pulled, allow to continue running until gauge reads between 15 and 20 inches Hg. **NEVER TO EXCEED 20" Hg.**
9. Close valve handle on drum lid, Perpendicular to valve body. Turn vacuum pump to "OFF" position. Remove vacuum hose from valve. Drum contents are now sealed in a vacuum.
10. Turn timer control knob to desired tumble time, and press red button on timer knob to start.
11. Turn on motor. Drum will start turning.
12. Drum will stop when time runs out.
13. Turn off motor, jog drum until opening is in upright position. **NEVER TURN DRUM BY HAND.**
14. Turn valve handle to open position Parallel with valve body to release vacuum. Remove drum lid.
15. Remove product from drum.
16. Unplug machine and refer to cleaning instructions.

MAINTENANCE



ROTATING DRUM TO AVOID SERIOUS PERSONAL INJURY

***ALWAYS** Turn Off, Unplug From Power Source and Perform Lockout/Tagout Procedure to This Machine **BEFORE** Servicing.*

***NEVER** Touch This Machine Without Training and Authorization By Your Supervisor.*

***NEVER** Bypass, Alter, or Modify This Equipment in Any Way From Its Original Condition.*

***PROMPTLY REPLACE** Any Worn or Illegible Labels.*

***USE ONLY GENUINE BIRO** Parts and Accessories Properly Installed.*

A. PUMP FILTER

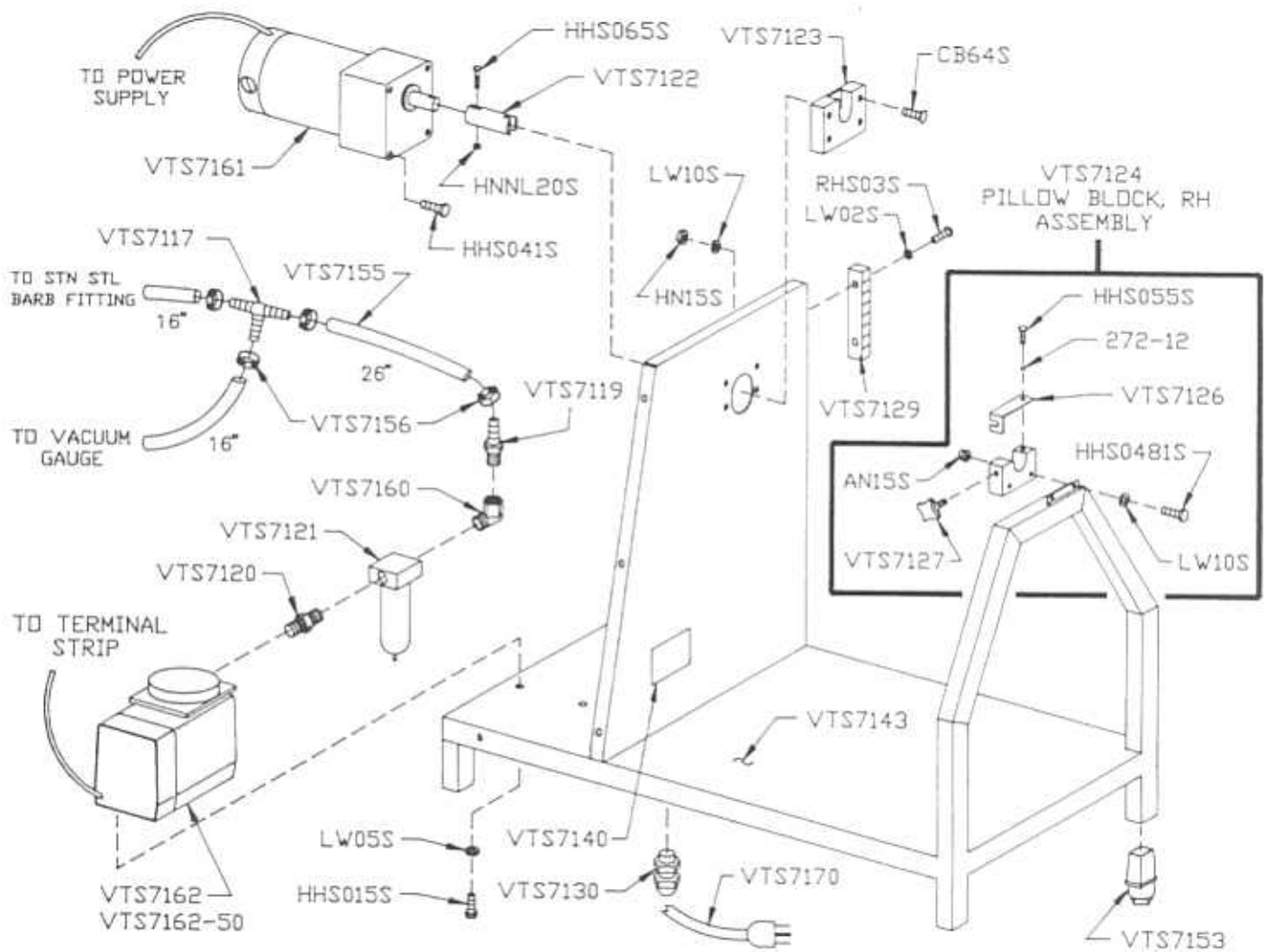
1. Check filter daily. Filter must be drained before the separated moisture and oil reaches the bottom of the lower white baffle. Drain by unscrewing the black drain plug in bottom of sight bowl.
2. The filter element should be removed and cleaned monthly.
 - a. Unscrew clear threaded bowl.
 - b. Unscrew filter element assembly
 - c. Clean bowl and filter element. Reassemble filter element. Clean bowl with mild soap and water only. Do not use detergents, cleansing agents, such as acetone, alcohol, benzene or gasoline, which are damaging to plastic.
 - d. Lubricate bowl gasket to assist initial sealing. Use only mineral based oils or grease. Do not use synthetic oils or silicones.
 - e. Screw bowl into body of filter. Close black drain plug.

B. VACUUM PUMP

WARNING: THE MOTOR IS THERMALLY PROTECTED AND CAN AUTOMATICALLY RESTART WHEN THE OVERLOAD RESETS. ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING. PERSONAL INJURY COULD BE THE RESULT.

1. Do not at any time lubricate any parts of the vacuum pump with oil, grease or petroleum products or clean with acids, caustics or chlorinated solvents. Never allow the diaphragm to contact any petroleum products. This can reduce greatly the service life of the vacuum pump.
2. To clean or replace the internal filters and/or rubber gasket. Remove the five screws in the top of the pump. The filter and gasket are located beneath this top plate. Remove the filters and wash them in solvent and blow off with air or replace. The gasket may be cleaned with water. Replace the filters in proper position and replace the gasket. The gasket and top plate will fit in one position only.
3. To replace the diaphragm, remove the socket cap screws from the head of the pump. The diaphragm is held in place by two Phillips head screws. Remove screws, retainer plate and diaphragm. The diaphragm will fit in any position on the connecting rod. Replace the plate and the two Phillips head screws. Torque to 30 inch pounds.

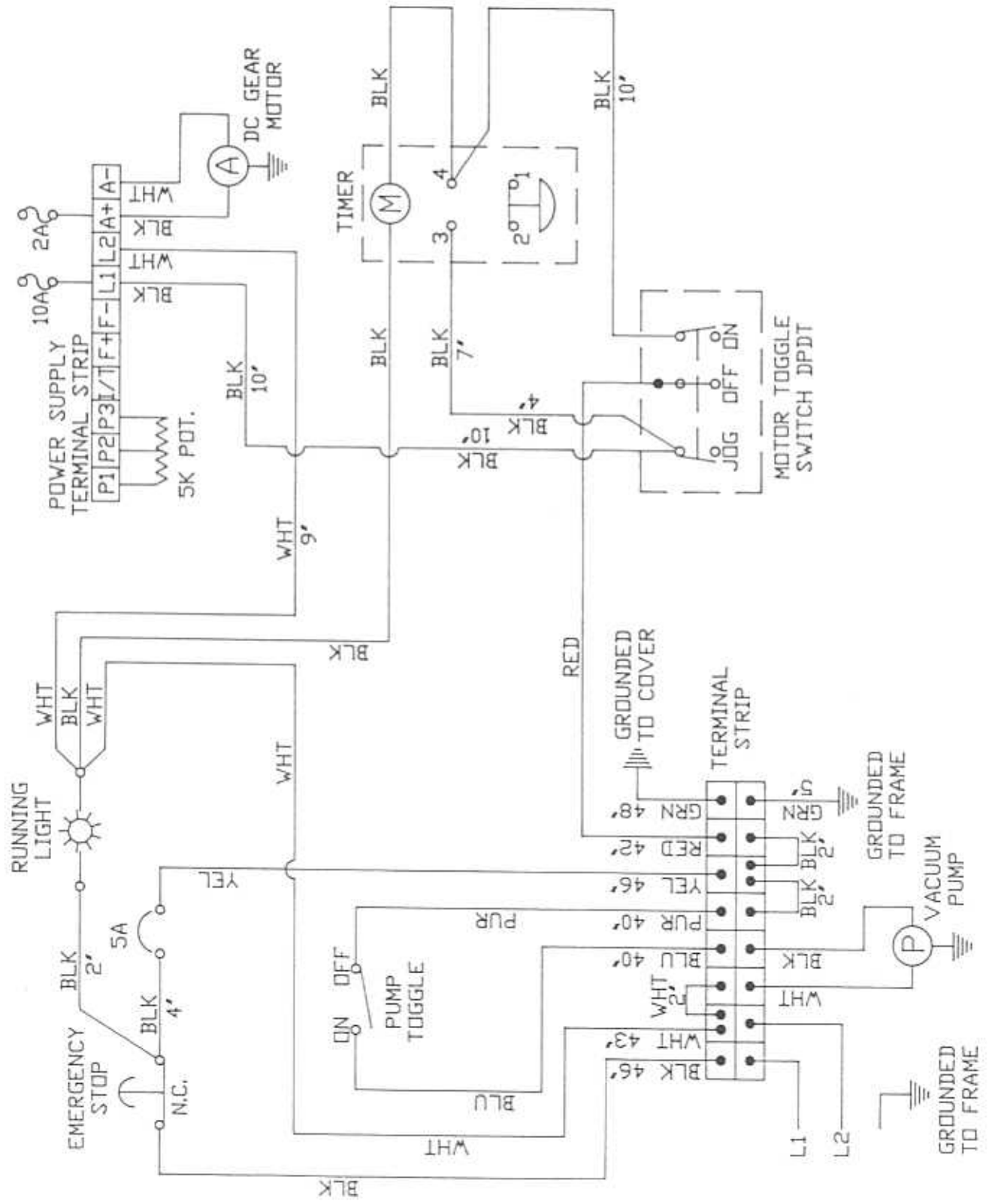
CAUTION: DO NOT RAISE ANY BURRS OR NICKS ON THE HEADS OF THESE SCREWS. THESE BURRS COULD CAUSE DAMAGE TO THE INLET VALVE.



Item No.	Description
272-12	Brass ball, 7/32" dia.
AN15S	Acorn nut, 1/4-20, SS
CB64S	Carriage bolt, 1/4-20 x 1 3/4, SS
HHS015S	Hex head screw, 10-32 x 7/8, SS
HHS041S	Hex head screw, 1/4-20 x 1/2, SS
HHS0481S	Hex head screw, 1/4-20 x 1 1/2, SS
HHS055S	Hex head screw, 5/16-18 x 3/4, SS
HHS065S	Hex head screw, 5/16-18 x 1 1/2, SS
HN15S	Hex nut, 1/4-20, SS
HNNL20S	Hex nut, 1/4-20, nylok, SS
LW02S	Lock washer, #6, SS
LW10S	Lock washer, #10, SS
RHS03S	Round head screw, 6-32 x 3/4, SS
VTS7117	Tee barb, 3/8 x 3/8 x 3/8, plastic
VTS7119	Straight barb, 1/4MPT x 3/8, plastic
VTS7120	Hex pipe nipple, 1/4MPT x 1/4MPT, brass

Item No.	Description
VTS7121	Vacuum pump filter
VTS7122	Coupling, drive shaft
VTS7123	Pillow block, left hand
VTS7124	Pillow block assembly, right hand
VTS7126	Retaining plate for R/H pillow block
VTS7127	Lock knob assembly
VTS7129	Terminal strip
VTS7130	Cord strain relief
VTS7140	Model & S/N plate, (S/N required)
VTS7143	Base without legs
VTS7153	Adjustable leg
VTS7155-1K	Vacuum hose, w/brass fittings, kit
VTS7156	Hose clamp
VTS7160	90 deg. street, 1/4MPT x 1/4MPT, brass
VTS7161	DC gearmotor, 90VDC, .7 Amp
VTS7162	Vacuum pump, 115-60-1
VTS7162-50	Vacuum pump, 220-50-1
VTS7170	Power cord w/plug, 115V, 8', 16/3

WIRING DIAGRAM FOR VTS-50R WIRED FOR 115V-60Hz-1PH DF 220V-50Hz-1PH



LIMITED WARRANTY

WARRANTY: The BIRO Manufacturing Company warrants that the BIRO Vacuum Tumbler will be free from defects in material and workmanship under normal use and with recommended service. BIRO will replace defective parts, which are covered by this limited warranty, provided that the defective parts are authorized for return, shipping charges pre-paid, to a designated factory for inspection and/or testing.

DURATION OF WARRANTY: The warranty period for all parts covered by this limited warranty is one (1) year from inspection/demonstration as advised on returned warranty registration card, or eighteen (18) months from original factory shipping date, whichever occurs first, except as noted below.

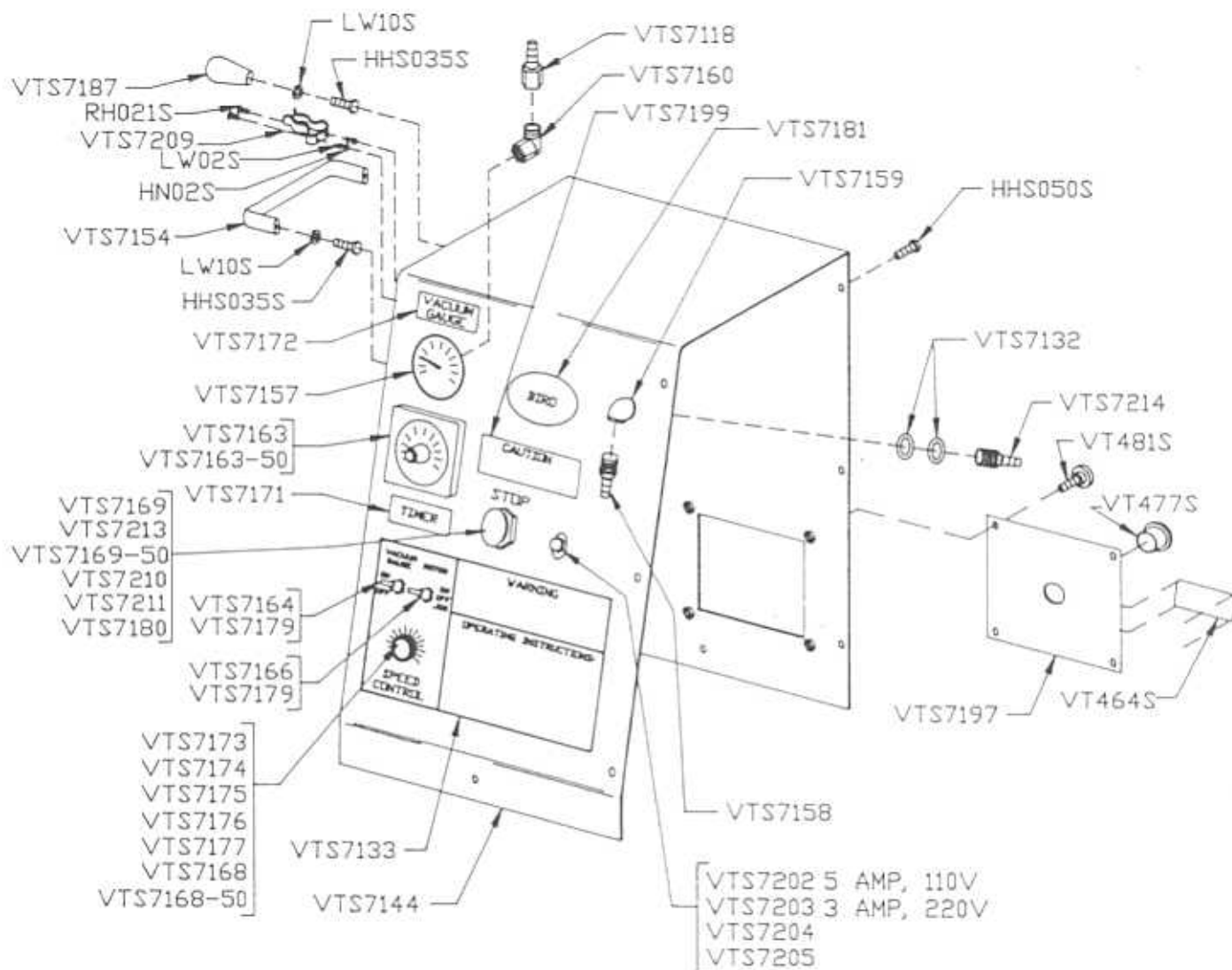
PARTS NOT COVERED BY WARRANTY: The following are **not** covered by this limited warranty: VTS7121 vacuum pump inlet filter, VTS7150 drum lid gasket, and VTS7152 ball valve on drum lid. This limited warranty does not apply to machines sold as used, rebuilt, modified, or altered from the original construction in which the machine was shipped from the factory. Water contaminated electrical systems are not covered under this limited warranty. BIRO is not responsible for electrical connection of equipment, adjustments to switch gear or any other electrical requirements, which must be performed only by a certified electrician. BIRO is not responsible for service charges or labor required to replace any part covered by this limited warranty or for any damages resulting from misuse, abuse, lack of proper or recommended service.

EXCLUSION OF WARRANTIES AND LIMITATION OF REMEDIES: BIRO gives no warranties other than those expressly stated in this limited warranty. THE IMPLIED WARRANTY OF MERCHANTABILITY, THE IMPLIED WARRANTY OF FITNESS FOR PROCESSING OF FOOD PRODUCTS, AND ALL OTHER IMPLIED WARRANTIES ARE SPECIFICALLY EXCLUDED. BIRO IS NOT LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, EXPENSES, OR LOSSES. THE REMEDIES PROVIDED IN THIS BIRO LIMITED WARRANTY ARE PURCHASER'S SOLE AND EXCLUSIVE REMEDIES AGAINST BIRO.

REGISTRATION CARDS: You must sign, date and complete the warranty card supplied with each machine. The warranty registration card must be returned to The Biro Manufacturing Company for proper registration. If no warranty card is returned to BIRO, the warranty period will begin from the date the machine was originally shipped from the factory.

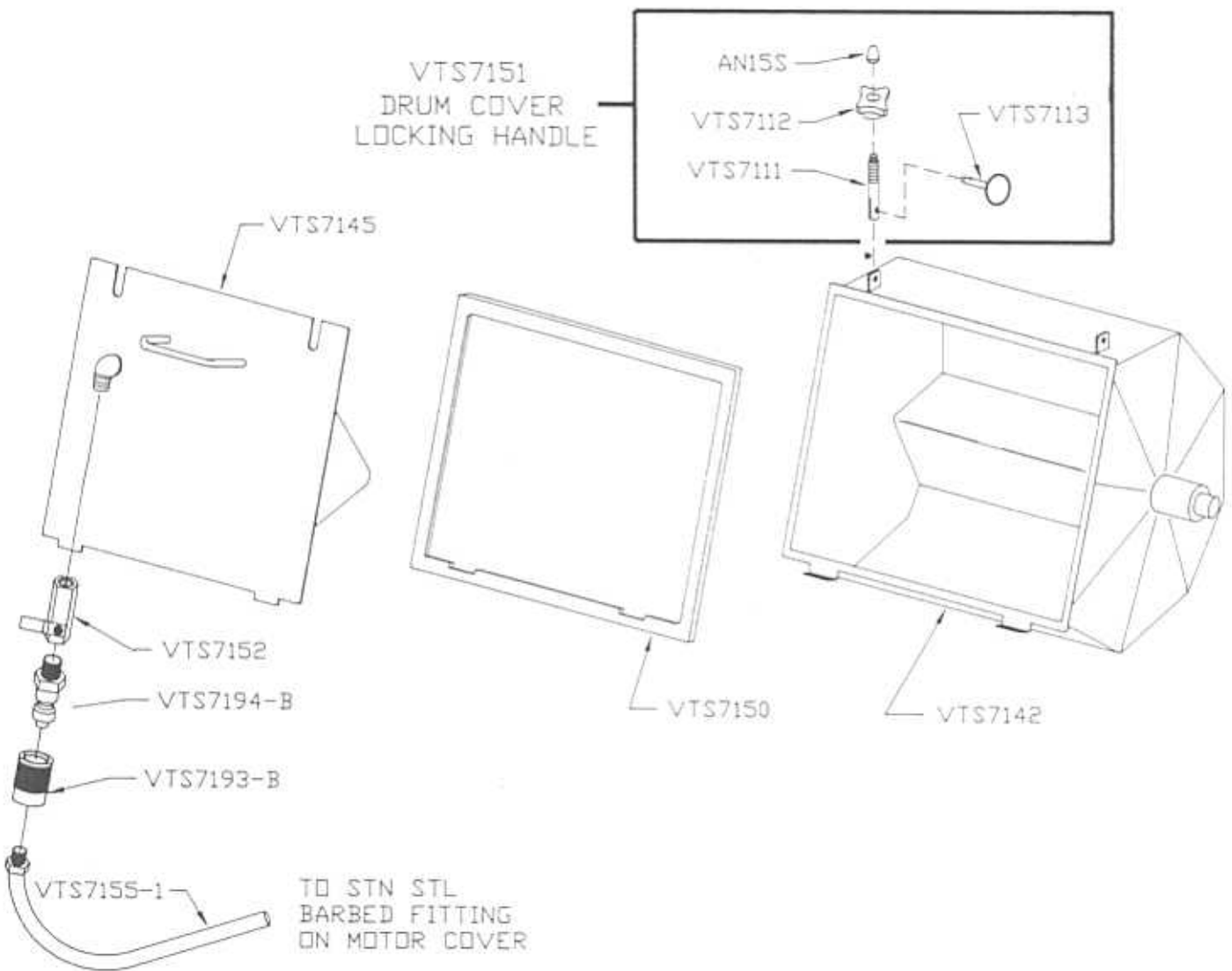
HOW TO GET SERVICE:

1. Contact the agency from whom you purchased the machine.
2. Consult the yellow pages of the phone directory for the nearest authorized dealer.
3. Or call BIRO Service Department (419) 798-4451 who will put you in contact with the nearest service agency.



Item No.	Description
HHS035S	Hex head screw, 1/4-20 x 3/8, SS
HHS050S	Hex head screw, 5/16-18 x 3/8, SS
HN02S	Hex nut, 6-32, SS
LW02S	Lock washer, #6, SS
RHS021S	Round head screw, 6-32 x 1/2, SS
VT464S	Label, Filter
VT477S	Sight window
VT481S	Access panel lock knob
VTS7118	Straight barb, 1/4FPT x 3/8, brass
VTS7132	Washer, aluminum
VTS7133	Label, Warning & Operating
VTS7144	Motor & pump cover
VTS7154	Oval handle
VTS7158	Hose barb, 3/8MPT x 3/8, SS
VTS7159	90 deg. elbow, 3/8FPT x 3/8FPT SS
VTS7160	90 deg. street, 1/4MPT x 1/4FPT, brass
VTS7163	Timer, 120V-60HZ
VTS7163-50	Timer, 220V-50HZ
VTS7164	Toggle switch w/boot, ON-OFF
VTS7166	Toggle switch w/boot, ON-OFF-JOG
VTS7168	Switching power supply, 120VAC-90VDC
VTS7168-50	Switching power supply, 220VAC-90VDC

Item No.	Description
VTS7169	Emergency stop switch, 60HZ
VTS7169-50	Emergency stop switch, 50HZ
VTS7171	Label, Timer
VTS7172	Label, Vacuum Gauge
VTS7173	Potentiometer & cable assembly
VTS7174	Knob, potentiometer
VTS7175	HP resistor, .1
VTS7176	Fuse, 10 amp, ABC series
VTS7177	Fuse, 2 amp, ABC series
VTS7179	Toggle switch half boot
VTS7180	Legend plate, "Emergency Stop"
VTS7181	"BIRO" world decal
VTS7187	Gasket hanger
VTS7197	Panel, motor cover
VTS7199	Label, Vertical Wall Clearance
VTS7202	Circuit breaker, 5 Amp, 110V
VTS7203	Circuit breaker, 3 Amp, 220V
VTS7204	Boot, circuit breaker
VTS7205	Legend plate, "Press to Reset"
VTS7209	Spring clip holder
VTS7210	Bulb, 6.3VDC, 50HZ only, E-Stop
VTS7211	Transformer, 220V-50/60HZ
VTS7213	Bulb, 6.3VDC, 60HZ only, E-Stop
VTS7214	Hose barb, 3/8MPT x 3/8, brass



Item No.	Description
AN155	Acorn nut, 1/4-20, SS
VTS7111	Bolt lock handle
VTS7112	Knob, locking handle
VTS7113	Quick release pin, locking handle
VTS7142	Drum, SS
VTS7145	Drum cover

Item No.	Description
VTS7150	Drum cover gasket, #12320 on
VTS7151	Locking handle assembly
VTS7152	Ball valve, SS
VTS7155-1	Vacuum hose w/3/8 crimped fittings
VTS7193-B	Quick coupler, BST-3
VTS7194-B	Nipple, quick coupler, BST-N3M

CLEANING



ROTATING DRUM TO AVOID SERIOUS PERSONAL INJURY

ALWAYS Turn Off, Unplug From Power Source and Perform Lockout/Tagout Procedure to This Machine **BEFORE** Cleaning or Servicing.

ONLY Use Recommended Cleaning Equipment, Materials and Procedures.

NEVER Spray Water or Other Liquid Substances Directly at Motor, Power Switch or any Other Electrical Components.

ALWAYS Thoroughly Clean Equipment at Least Daily.



DO NOT Use Harsh Chemicals, Scouring Pads or Cleansers. Ordinary Liquid Detergent for Manual Dish or Pot/Pan Washing Will Not Harm the Machine. Dish Machine Chemicals Will Cause Brown "Rusty" Stains, as will Chlorine Bleach and Similar Products if Allowed to Stand in or on the Machine for Any Length of Time.

CLEANING THE BIRO VACUUM TUMBLER:

1. Jog machine until drum is in desired position for cleaning.
2. Turn "OFF", unplug machine from power source, and perform lockout/tagout procedures.
3. The drum lid and gasket can be removed and washed in utensil sink. Be sure to flush the vacuum valve on drum with warm soapy water and rinse with clean water thoroughly. The drum, drum lid, and gasket should be sanitized with a chlorine solution or another appropriate sanitizer approved by your local Health Dept. All parts should be air dried before reassembly and storage.
4. The exterior of the tumbler base can be wiped down with the same type soap solution followed by a rinse water wiping.
5. If food stains are not removed, use a product such as "Bon Ami" or "Soft Scrub". Be sure to scrub with the grain of the Stainless Steel with a soft cloth or sponge.
6. Streaks or water spots can usually be removed with a solution of vinegar and water.

OPERATION



ROTATING DRUM TO AVOID SERIOUS PERSONAL INJURY

ONLY Properly Trained Personnel Should Use This Equipment.

ALWAYS Keep Hands Clear of the Rotating Drum and Other Moving Parts.

DO NOT Tamper With, Bypass, Alter, or Modify This Equipment in Any Way From Its Original Condition.

ALWAYS Turn Off, Unplug From Power Source and Perform Lockout/Tagout Procedure to This Machine Before Cleaning, Servicing, or When Not In Use.

NEVER Leave Unattended While Operating.

DO NOT Store or Operate Machine in Meat Cooler.

ALWAYS Comply With All Regulation for Food Handling, Packaging, and Storage.

NEVER Operate Without All Warning or Instruction Labels Attached.

A. FOOD HANDLING TO PREVENT CONTAMINATION

1. **ALWAYS** wash hands thoroughly with warm soap and water before and after handling raw fish, poultry or meats.
2. **ALWAYS** clean and sanitize all utensils and surfaces that have been in contact with raw products.
3. **ALWAYS** store cold foods at or below 45 deg. F (7.2 deg. C).

NOTICE TO OWNERS AND OPERATORS

BIRO's products are designed to process food products safely and efficiently. Unless the operator is properly trained and supervised, however, there is the possibility of a serious injury. It is the responsibility of the owner to assure that this machine is used properly and safely, strictly following the instructions contained in this Manual and any requirements of local law.

No one should use or service this machine without proper training and supervision. All operators should read and be thoroughly familiar with the procedures contained in this Manual. Even so BIRO cannot anticipate every circumstance or environment in which its products will be used. You, the owner and operator, must remain alert to the hazards posed by the function of this equipment. No one under eighteen (18) years of age should operate this equipment. If you are uncertain about a particular task, ask your supervisor.

This Manual contains a number of safe practices in the SAFETY TIP section. Additional warnings are placed throughout the Manual. Warnings related to your personal safety are indicated by:



OR



Warnings related to possible damage are indicated by:



BIRO also has provided warning labels on the equipment. If any warning label or Manual becomes misplaced, damaged, or illegible, please contact your nearest Distributor or BIRO directly for a replacement.

Remember, however, this Manual or the warning labels do not replace the need to be alert and to use your common sense when using this equipment.