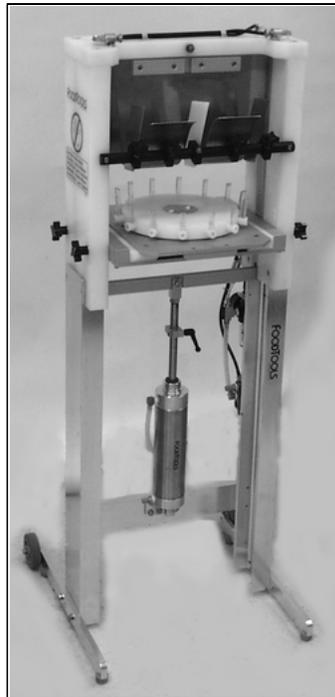


# FOODTOOLS

## MODEL: CS-1A CAKE / PIE SLICER



## OPERATIONS MANUAL

**Instruction Manual:** CS-1A

**Serial Number:** \_\_\_\_\_

*Please provide this serial number when placing an order or making inquiries.*

**Date:** \_\_\_\_\_

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## INTRODUCTION

The **FoodTools** model CS-1A cake slicer has been designed for the small to medium size baker with the need to slice a frozen or semi-frozen round cake or pie products. The **FoodTools** slicer is unique because it not only slices the product, but also inserts a wax paper divider between each piece. This feature keeps the machines slicing blade clean and also prevents the product from sticking together.

The machine is capable of slicing a wide variety of round cakes and other bakery products from six to eleven inches in diameter, and from one to five inches in height. From four to twenty four equal portions may be selected in even numbers. For the most effective slicing results, the bakery product should be frozen between 0°F and 20°F. In some cases satisfactory results maybe obtained at higher temperatures.

To convert from slicing one product to another (with a different diameter or requiring a different number of portions), the operator need only change the Product Support Dial (and if necessary adjust the divider guides).

The CS-1A is a semi-manual machine, the operator must feed the waxed paper dividers and rotate the cake dial by hand, but the slicing blade is powered by pneumatic air pressure.

**NOTE:** Compressed air pressure of at least 80 psi is needed to operate the CS-1A slicer.

This machine is constructed of all NSF - approved materials, and requires virtually no maintenance other than putting a few drops of light mineral oil into the machine air line every three to six months.

## SAFETY WARNINGS

- WARNING:** Read and follow all safety labels and instructions. This machine can cause great bodily harm if proper safety procedures are not followed.
- WARNING:** Press emergency stop button before turning on the machine air supply.
- WARNING:** Do not reach into blade path when machine air supply is connected.
- WARNING:** Disconnect air supply before cleaning or servicing this machine.
- CAUTION:** Only a properly trained service technician should service this machine.
- WARNING:** Do not make modifications to this machine that affect the operation of the dual pushbuttons.

**SPECIFICATIONS**

**Model:**

**FoodTools** CS-1A

**Input Air Power:**

2 SCFM @ 80 PSIG **DRY, FILTERED AIR.**

**Mechanical Forces:**

Blade Down Force @ 80 PSIG: ..... 390 lbs.

**Machine Size:**

Height: ..... 47 inches.

Width: ..... 18 inches.

Length: ..... 19 inches.

Weight: ..... 55 lbs.

**Airborne Noise Emissions:**

82 dB(A) at operators station.

## MACHINE SET-UP & ADJUSTMENT

This section covers the procedures and adjustments that may be needed during the normal setup and operation of the CS-1A. These adjustments may be made by the machine operator or maintenance personnel. The machine will usually arrive adjusted for your product size and cut pattern. Many of the items mentioned in this section will not need adjustment, however, it is a good idea to be familiar with these procedures for future reference.

### Unpacking & Assembly Instructions

Remove all components from the shipping box and unwrap. You will notice the machine is in several component pieces. Assembly of these components is relatively simple and should take only a few minutes to complete.

**NOTE:** Use Illustration on page 10 to identify and locate parts described in this manual.

**A.** Mount the divider supply tray to the top of the machine using the black thumb screw.

Assembly is now complete. Review the entire Operation Manual before using this slicer.

### The Portion Dial

Some minor adjustments to the dial fingers may be necessary to fit your individual product (see figure 4A and 4B, page 13). To adjust the dial fingers, first loosen the set screws located on the underside of the dial, then slide the fingers in or out as needed. Make sure the fingers are all spaced an equal distance from the dial edge. (An easy way to do this is to use a pencil or other object as a gauge.) Retighten the set screws making sure not to over tighten.

Install the dial on the platform by placing it over the stainless steel center post and then finger tighten the dial nut to secure. The dial has drilled program holes that will detent the dial into the correct slicing position.

Special dials are available for slicing pies. Contact **FoodTools** (805/962-8383) for more information.

### Divider Supply System Adjustment

The Divider Supply System positions the waxed paper dividers under the slicing blade prior to slicing (see figure 5A, page 14). These will need to be adjusted to fit the divider size that will be used.

#### To adjust the Divider Supply System:

1. Loosen the clamp knobs on the two outside front divider guides. Adjust them to allow approximately 1/16 inch clearance over width of the divider. (Do *not* loosen the center guide, it has been factory adjusted. If this guide is moved see "Setting Divider Centrality" in the service section of this manual.)
2. The divider chutes should then be centered between the center and the outside guides, and the front edge of chute should be approximately. 1/16 inch from the blade. (Do not allow the chutes to rub on the blade)
3. Align the rear divider supports to the front divider chutes leaving 1/16" clearance between the blade (see figure 5B, page 14). The rear supports should be between 1/16" and 1/8" lower than the front chutes. If this is not the case, lightly bend the support until proper clearance is reached.
4. The divider stop block positions the divider under the blade in the correct position to be folded in half during slicing. Adjust the stop block by loosening the thumb screw on the end of the block and slide the stop forward or backward as needed. Use the scale attached to the block as a guide when setting the stop. (The numbers on the scale represent the length of the divider paper) When the setting is correct retighten the thumb screw.

**Platform Height Adjustment**

To allow for proper clearance between the divider supply system and the top of the product, platform height may require adjustment. Clearance of approximately 1/2 inch between the divider supply system and the top of the product is a good rule of thumb.

To adjust the Platform Height:

1. Remove the dial platform from the base plate
2. Loosen the four black base plate mounting knobs on the sides of the machine (see figure 6A, page 15).
3. While supporting under the base plate, remove the knobs and move them to the new hole locations in the side plates.
4. Move the base plate up or down to engage with the pointed knob studs
5. Tighten the knobs.
6. At this time, it will be necessary to reset the Blade Stop Clamp.

**Blade Stop Clamp**

Located on the main power cylinder shaft (see figure 6B, page 15), this clamp controls the amount of blade travel.

To adjust the Blade Stop Clamp:

1. Place a cardboard cake circle onto the product dial and slide the platform into slicing position.
2. Loosen the black handle on the clamp (see figure 6B, page 15)
3. Grasp the cylinder clevis and bring the blade down against the cake circle.
4. Slide the clamp down until it touches the top of the cylinder
5. Firmly tighten the black handle.

**The Slicing Blade**

Under normal use the stainless steel slicing blade should not require any maintenance other than cleaning. (If the blade is damaged see “Blade and Return Spring Replacement” in the service section of this manual.)

The blade has been “dull” sharpened, this prevents the dividers from being cut and also reduces the chance of cuts during cleaning and service. We highly recommend that the blade remain dull.

Special contoured blades are available for slicing pies in their tins. Contact **FoodTools** (805/962-8383) for more information.

**Divider Supply Tray**

Load a stack of divider inserts into each side of the supply tray. (If necessary, wedge a small piece of cardboard into the tray to keep divider from sliding around.)

**Air Pressure Filter/Regulator**

This regulator, located on the back of the right frame leg (see figure 6B, page 15), controls the compressed air supply to the machine. This is also where the compressed air supply is connected.

The regulator should be set between 80 and 100 psi. Adjust the regulator by lifting up on the black adjustment knob.

This regulator also acts as a filter to remove water and foreign objects from the incoming air stream. When water collects in the clear plastic bowl, press the small button located on the bottom of the bowl *upward* to blow out any water.

## MACHINE OPERATION

- Follow the necessary set-up instructions before operating the slicer.
- Position the dial onto the platform. Make sure that the dial is rotated into a detent position.
- Place the product onto the dial and push the platform into slicing position.
- Drop one sheet of divider paper down each divider feed chute.
- Press both push buttons simultaneously to cycle the blade. Hold the buttons in until the product is sliced through. Release the push buttons.
- Once the blade has returned to the up position, rotate the dial by hand to the next detent position.
- Repeat the previous three steps until the product is completely sliced.
- Pull the platform out and lift the product from the dial. Check to see that the product has sliced correctly, and that the dividers have folded evenly. Make any necessary adjustments.

## THE SECRET TO SUCCESSFUL SLICING

After several years of experience, we have found that the secret to successful slicing is TEMPERATURE, TEMPERATURE, TEMPERATURE!

There are, essentially, four temperature levels from which to choose:

1. DEEP FROZEN: Essentially a uniform temperature throughout the product from prolonged exposure at stable subzero temperatures for more than two days.
2. QUICK FROZEN: The result of overnight freezing, where the core temperature of the product may be 10-20 degrees Fahrenheit warmer than the outer surface as a result of the freezing process progressing from the outside to the center.
3. PARTIAL THAW: The result of allowing the surface of a deep frozen product to warm to near room temperature prior to slicing. This procedure has been successfully used to slice frosted tortes, cakes and pies where the frostings are too brittle to slice cold.
4. REFRIGERATED: Cooled to a level above which the core ingredients become firm.

A quality sliced product is generally defined as one in which the sharp tips of each slice are apparent, with minimal destruction of the center of the product. Other features are the cleanliness of the cut, through the product core material, the straightness of each vertical cut, and the minimization of damage to the crust, crumb or similar coatings on the top, edges, sides or bottom of the product.

### Some Guidelines

While the following product slicing temperatures prevail for the majority of applications, individual experimentation may demonstrate your need for a different temperature gradient due to your ingredients, production process, freezer capability, or other factors.

So far, every application has found a suitable temperature arrangement for quality slicing. Please feel free to contact us at any time to discuss your specific applications if you are not satisfied with your slicing results.

Cheesecakes, mousse, pies .....	10 to 20°F
Layer cakes, tortes, pies .....	-10 to 10°F
Sponge cake, pound cake .....	-20 to 00°F
Brownies, goldies .....	20 to 35°F

Generally, the more dense the core material, (to resist compression), the less freezing that will be required.

## CLEANING

The entire machine can be washed down with soap and water, using a hose. Steam cleaning is also permissible.

We recommend that the dial and dial platform be removed from the machine and washed or wiped down individually.

The blade can be wiped clean by lowering it below the divider guide components for better access.

## SERVICE & MAINTENANCE

The model CS-1A Cake Slicer is designed to require very little maintenance, but over time, some adjustments and service may be necessary. Described below are some areas that may require attention. If you have any questions call **FoodTools** Service Dept. (800) 644-2377

### Machine Lubrication

Remove the air supply from the machine, and unscrew the clear air tubing connector located just above the regulator (see figure 6B, page 15). Put a few drops of mineral oil into the lower tube. Lubrication is only required every three to six months, depending on machine usage.

### Blade and Return Spring Replacement

#### How to replace the Blade and Spring Return:

1. Remove the air supply from the machine.
2. Remove the divider supply tray, divider supply system and dial/base plate assembly.
3. Unhook the cylinder rod clevis from the blade frame crossbar.
4. Uncouple the *two* hose connections above the air pressure regulator and unscrew the hose clamps from the side plate.
5. Remove the four flat head screws that hold the cap plate to the top of the machine.
6. Lift cap plate and blade frame straight out of the top of the machine.
7. Pull cap plate off the top of the blade frame (to relieve spring tension)
8. If replacing the blade, remove the two flat head screws that hold the crossbar to the left and right draw bars and pull the crossbar free.
9. Remove the socket head screws from the two blade clamps and from the top clamp. (*Do not* loosen any other blade frame screws.)
10. Replace the blade and reverse the disassembly procedure. Hold draw bars apart while inserting the crossbar into the draw bars. (The slot in crossbar faces the front of blade frame.)

**Setting Dial Centrality**

The dial must be centered to the slicing blade to achieve accurate and uniform slices.

**How to adjust Dial Centrality**

1. Slide the platform into slicing position.
2. Loosen the blade stop clamp on cylinder shaft.
3. Loosen the adjustment screw lock nut on back end of platform side guide.
4. Bring the blade down to the dial surface, align the center of the dial nut with the blade edge by using the adjustment screw.
5. Tighten the adjustment screw lock nut and recheck centrality.
6. Readjust the blade stop clamp.

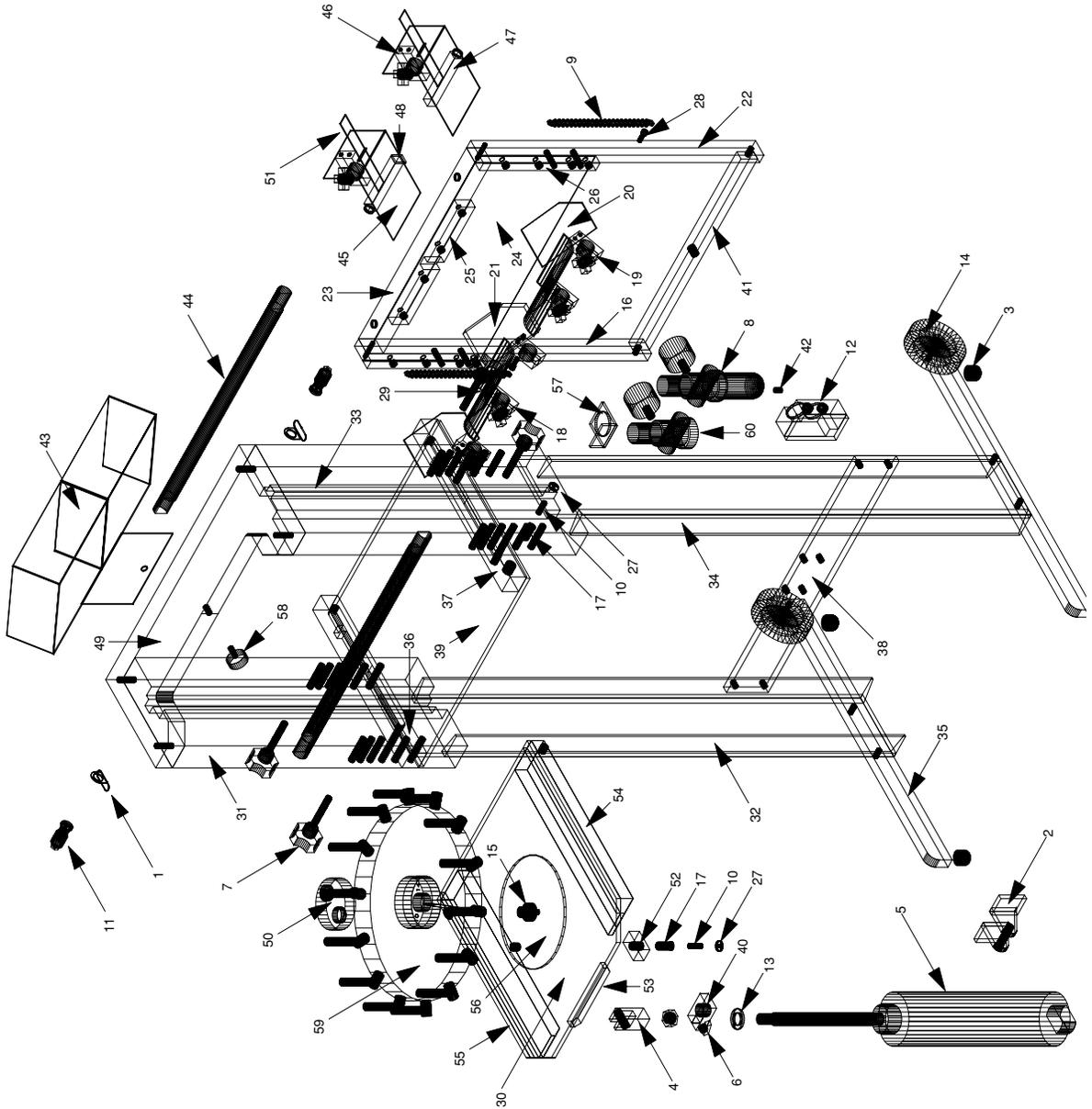
**Setting Divider Centrality**

- Slide the platform into slicing position.
- Loosen the blade stop clamp on cylinder shaft.
- Bring the blade down to the dial surface and make a pencil mark on the center of the blade, using the dial nut center as a reference.
- Loosen the center divider guide clamp screw and adjust until the center of the guide is aligned with center line mark on the blade.

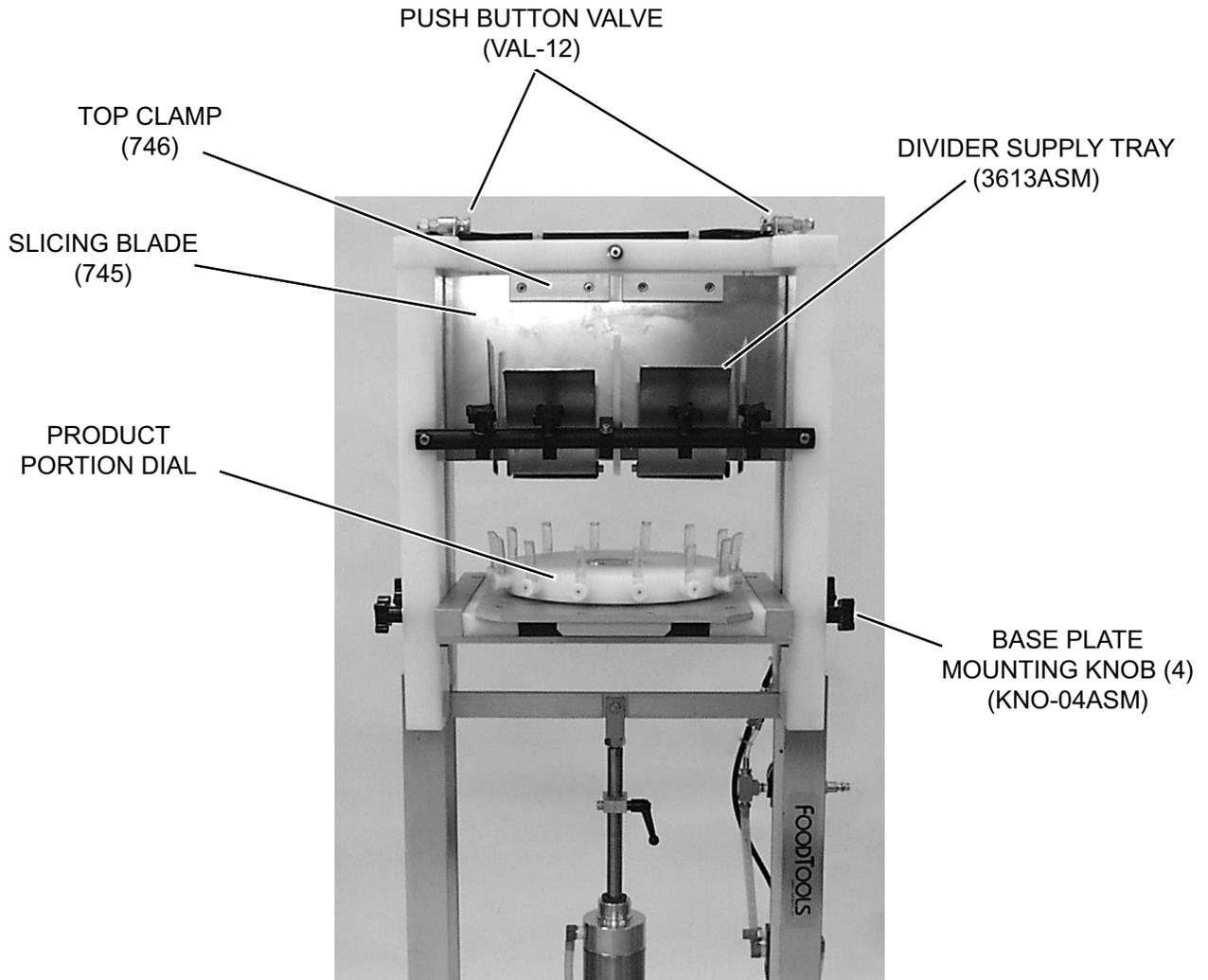
PARTS DIAGRAM  
(FIGURE 1)

**MACHINE COMPONENTS**

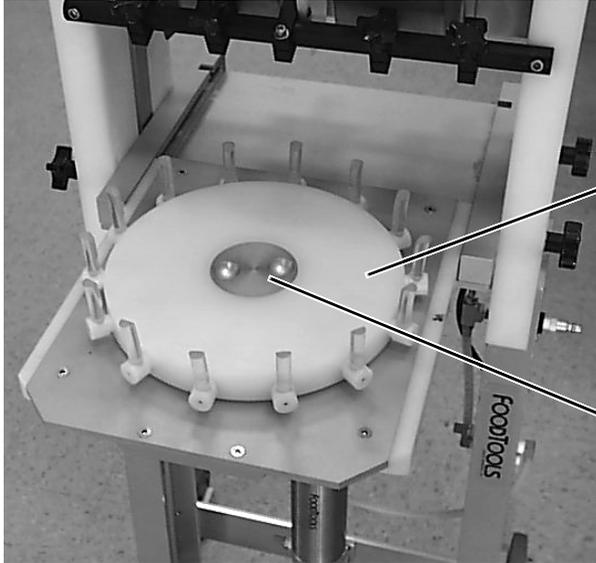
1. VALVE BRACKET (BRA-02)
2. CYLINDER BRACKET (BRA-05)
3. RUBBER FOOT (BUM-01)
4. CYLINDER CLEVIS (CLE-03)
5. POWER CYLINDER (CYL-03)
6. STOP CLAMP HANDLE (HAN-03)
7. BASE PLATE MOUNTING KNOBS (KNO-04ASM)
8. FILTER REGULATOR WITH GAUGE (REG-01)
9. BLADE RETURN SPRINGS (SPR-08)
10. DETENT SPRINGS (SPR-09)
11. PUSH BUTTON VALVE (VAL-12)
12. MAIN 4-WAY VALVE (VAL-51)
13. BLADE REVERSAL CUSHION WASHER (WAS-29)
14. CASTER WHEELS (WHE-06)
15. CENTER POST (PN-709)
16. DRAWBAR, LEFT (PN-722)
17. DETENT BULLET (PN-729)
18. RAMP BLOCK (PN-734)
19. WALL BLOCK (PN-735)
20. GUIDE WALL (PN-736)
21. CENTER WALL (PN-737)
22. DRAWBAR, RIGHT (PN-743)
23. TOP BAR (PN-744)
24. SLICING BLADE (PN-745)
25. TOP CLAMP (PN-746)
26. BLADE CLAMP (PN-747)
27. DETENT RETAINER (PN-749)
28. SPRING RETAINER SCREW (PN-750)
29. DIVIDER CHUTE (PN-1181)
30. DIAL PLATFORM (PN-3600)
31. SIDE PLATE, LEFT (PN-3601)
32. FRAME SIDE, LEFT (PN-3602)
33. SIDE PLATE, RIGHT (PN-3603)
34. FRAME SIDE, RIGHT (PN-3604)
35. BOTTOM LEG (PN-3605)
36. GUIDE RAIL, LEFT (PN-3606)
37. GUIDE RAIL, RIGHT (PN-3607)
38. LOWER CROSSBAR (PN-3608)
39. BASE PLATE (PN-3609)
40. CYLINDER STOP BRACKET (PN-3610)
41. CROSSBAR (PN-3611)
42. FLOW RESTRICTOR, INSIDE TUBING (PN-3612)
43. DIVIDER SUPPLY TRAY (PN-3613ASM)
44. DIVIDER SUPPORT BAR (PN-3615)
45. REAR DIVIDER SUPPORT (PN-3618)
46. REAR SUPPORT MOUNT (PN-3619)
47. DIVIDER STOP BLOCK (PN-3620)
48. DIVIDER STOP CLAMP (PN-3621)
49. CAP PLATE (PN-3622)
50. DIAL NUT ASSEMBLY (PN-3624ASM)
51. DIVIDER SCALE (PN-3626)
52. DETENT BLOCK (PN-3627)
53. PLATFORM HANDLE (PN-3628)
54. PLATFORM SIDE, RIGHT (PN-3629)
55. PLATFORM SIDE, LEFT (PN-3630)
56. PLATFORM CENTER BEARING (PN-3631)
57. PAPER TRAY KNOB (KNO-08ASM)
58. PRODUCT PORTION DIAL
60. BLADE UP REGULATOR (REG-02) WITH GAUGE (GUA-0



FRONT VIEW  
(FIGURE 2)



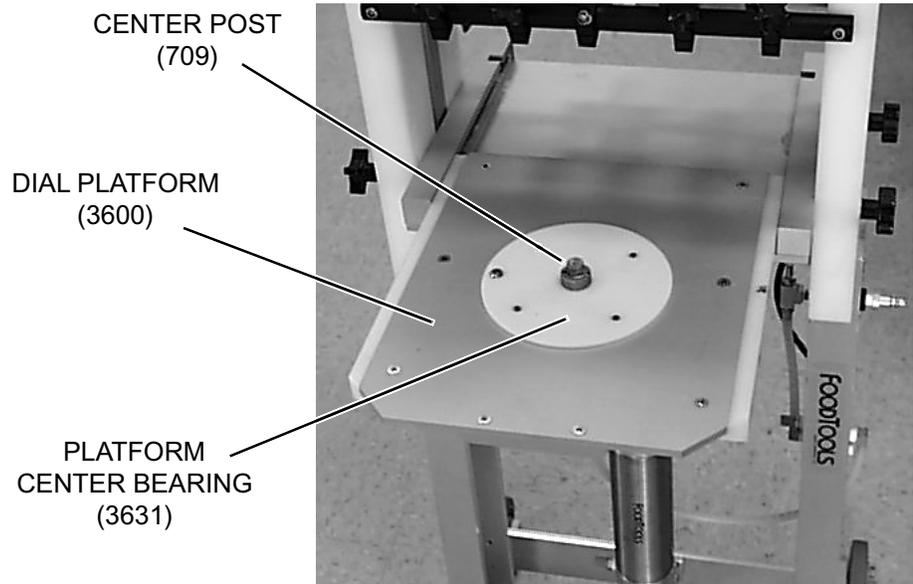
### PLATFORM



PRODUCT  
PORTION DIAL

DIAL NUT  
ASSEMBLY  
(3624ASM)

PLATFORM WITH PORTION DIAL  
(FIGURE 3A)



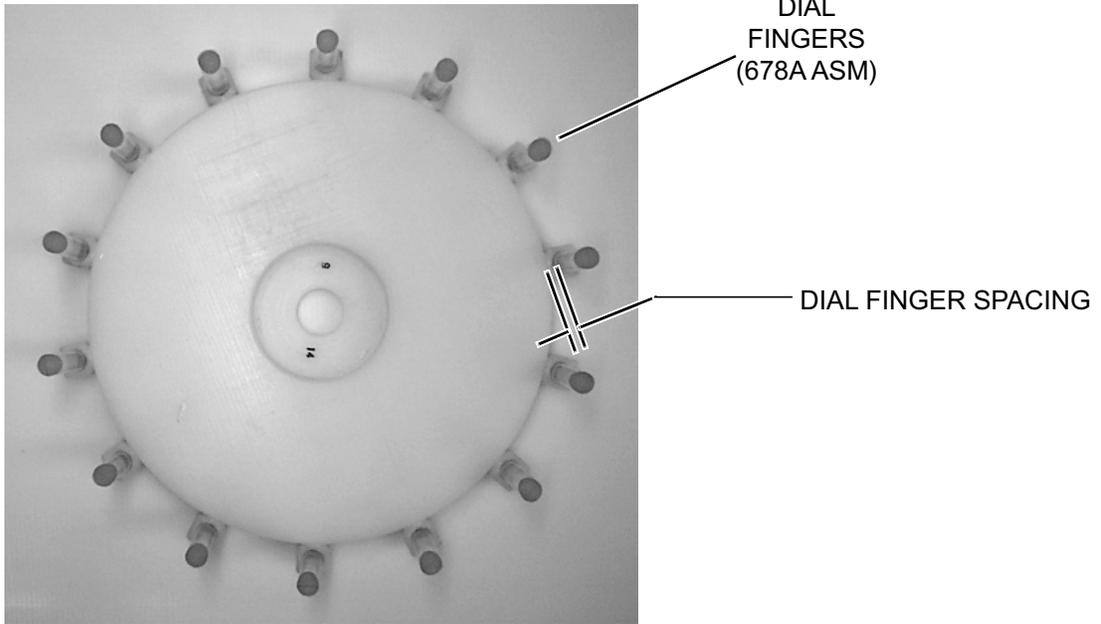
CENTER POST  
(709)

DIAL PLATFORM  
(3600)

PLATFORM  
CENTER BEARING  
(3631)

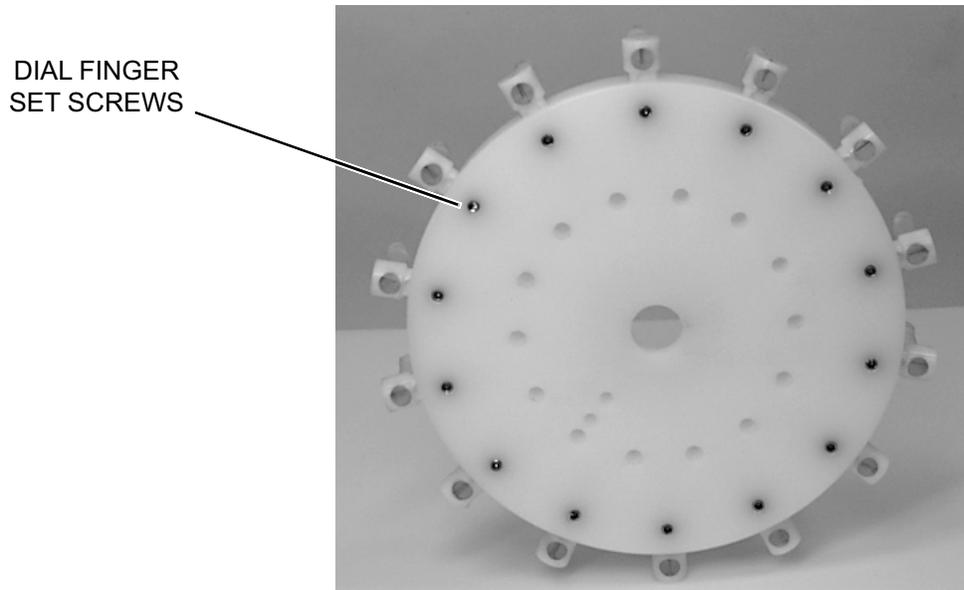
PLATFORM WITHOUT PORTION DIAL  
(FIGURE 3B)

PRODUCT PORTION DIAL

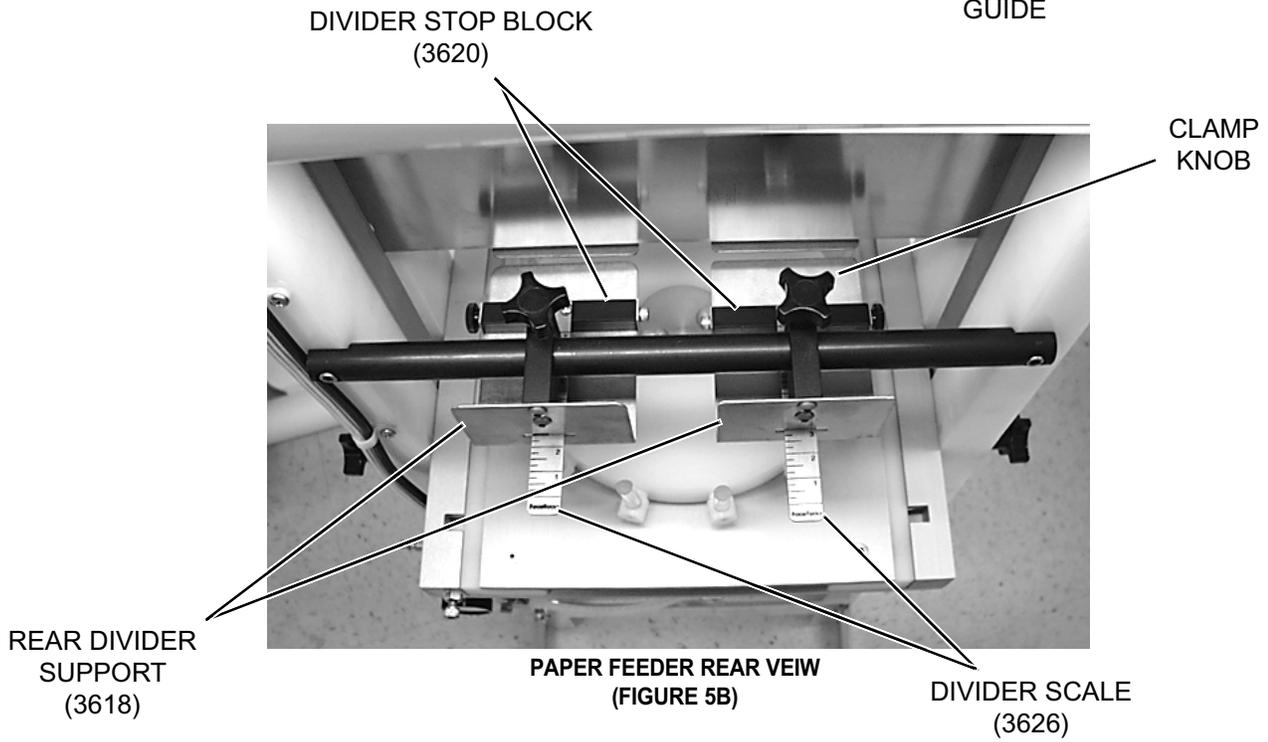
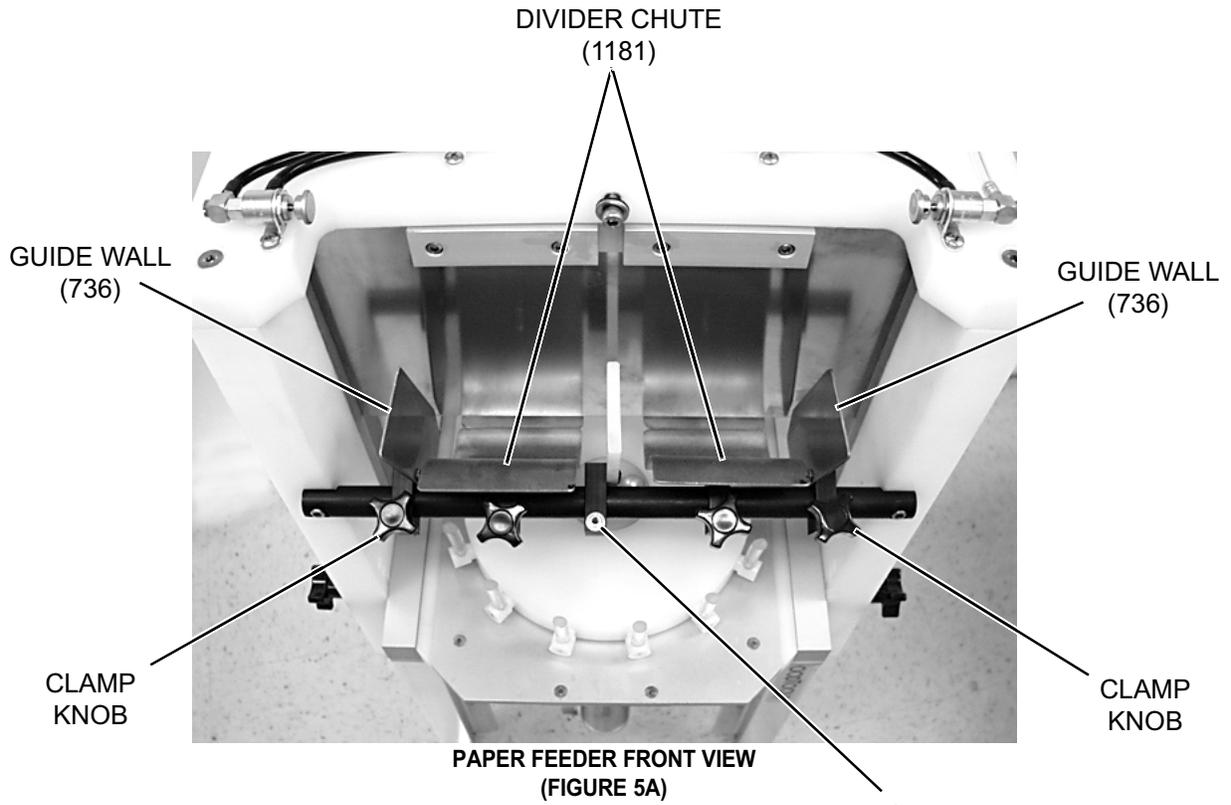


PRODUCT PORTION DIAL TOP VIEW  
(FIGURE 4A)

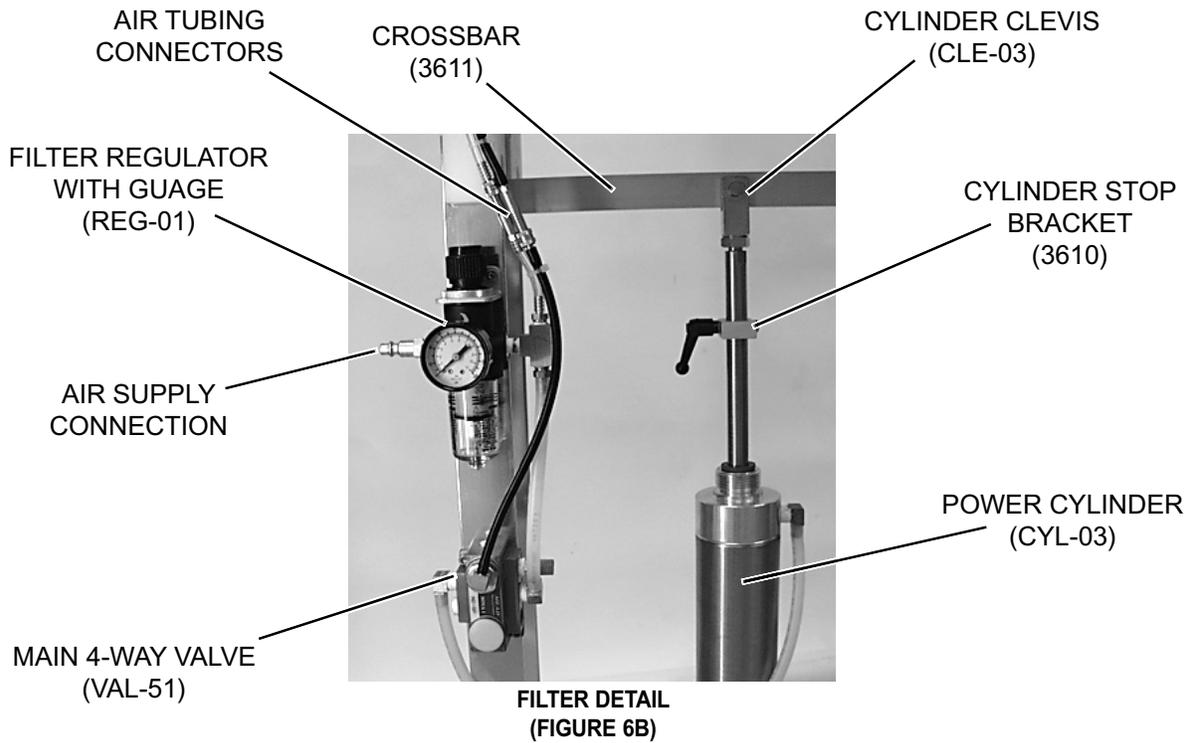
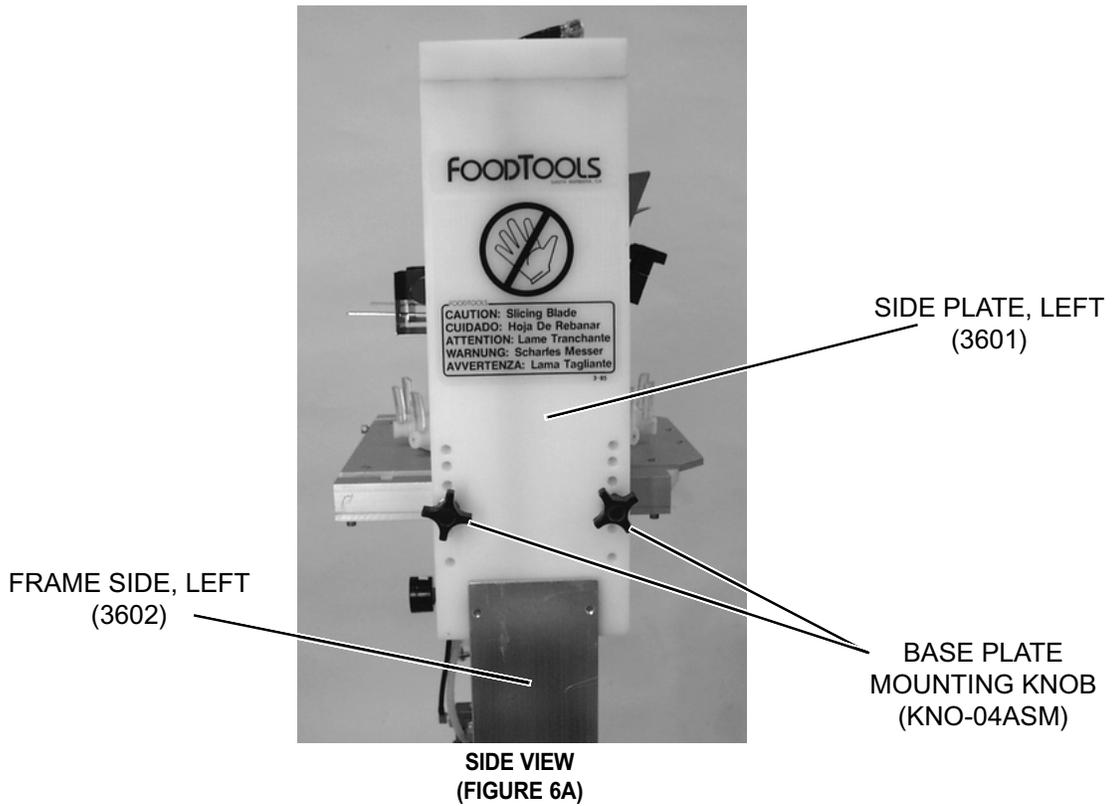
PRODUCT PORTION DIAL BOTTOM VIEW  
(FIGURE 4B)



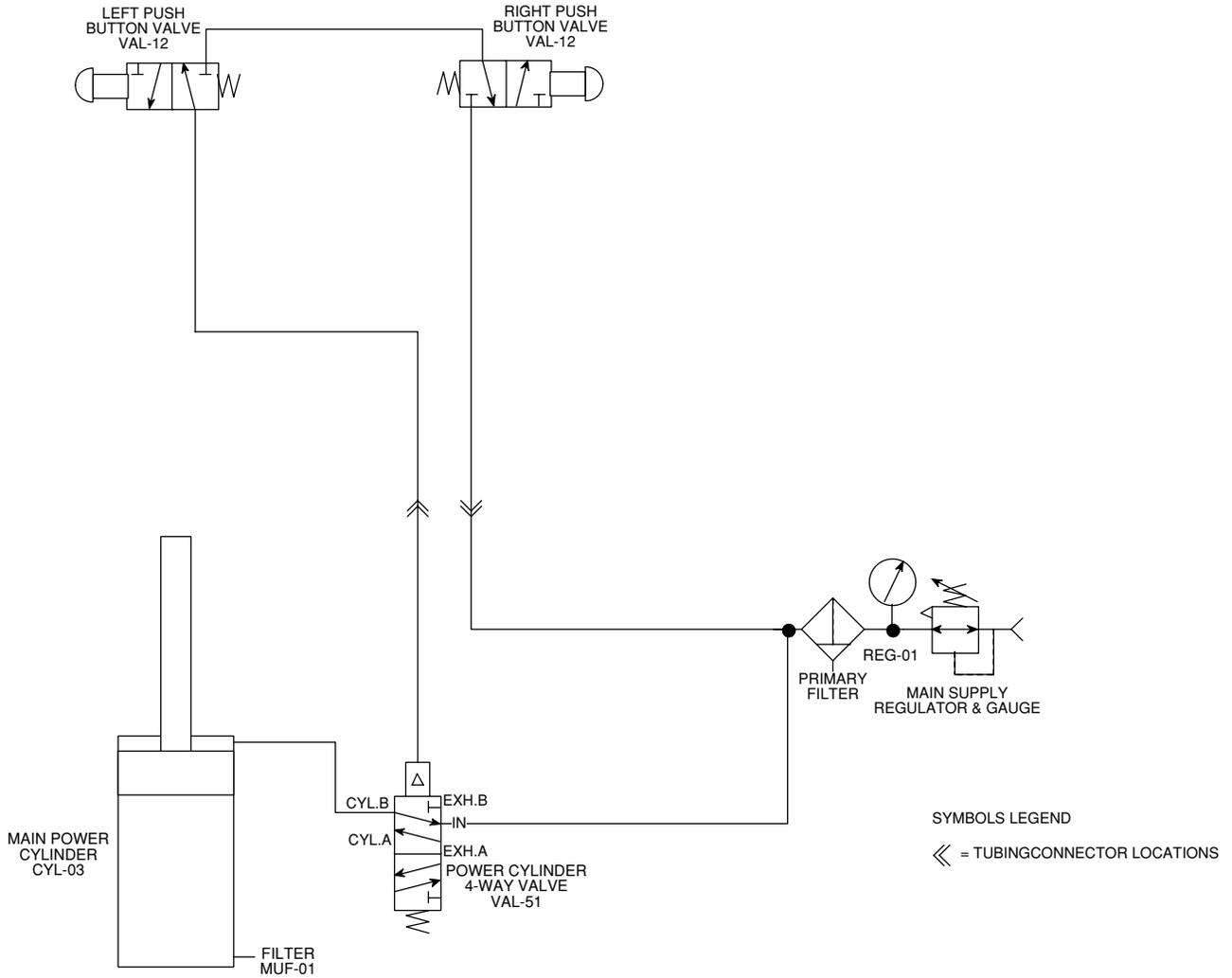
PAPER FEEDER



MISC. DETAILS



PLUMBING / INSTRUMENT DIAGRAM



<b>PLUMBING / INSTRUMENT DIAGRAM</b>		
MODEL : CS-1A SEMIAUTOMATIC SLICER		
DATE : 1-3-00	DRAWN : DH	REV:
<b>FOODTOOLS INC.</b> SANTA BARBARA, CA		

## LIMITED WARRANTY

**FoodTools**, Inc. warrants to and for the sole benefit of the original purchaser of the equipment, that such equipment is free from defects in material and workmanship under normal and proper use, operation and maintenance. This warranty shall remain in effect for a period of one year after delivery of the equipment to the original purchaser. Notice of any claimed defect must be promptly given by the original purchaser to **FoodTools**, Inc. and the claimed defective part or the equipment returned to **FoodTools**, Inc. prepaid. Notice must further include consent to **FoodTools**, Inc. to inspect the equipment or part to determine that it is defective and that it has only been subject to ordinary use and service.

If a valid warranty claim is made during the above warranty period, **FoodTools** shall provide the parts required to repair or replace as **FoodTools**, Inc. shall elect, the defective part or the equipment. The installation and freight cost of the replacement parts or equipment shall be at the expense of the owner.

This warranty does not cover damage through accident or misuse.

**FoodTools**, INC.'S WARRANTY IS LIMITED TO REPLACING ANY EQUIPMENT THAT IS PROVEN TO BE DEFECTIVE, AND **FoodTools**, INC. IN NO EVENT SHALL HAVE ANY LIABILITY FOR PAYING INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING, WITHOUT LIMITATION, DAMAGES ARISING FROM PERSONAL OR BODILY INJURY OR DEATH, OR DAMAGES TO, OR LOSS OF USE OF, ANY PROPERTY. NOT WITHSTANDING ANY OF THESE TERMS AND CONDITIONS, THE WARRANTIES SET FORTH SHALL APPLY IN CONNECTION WITH ANY SALE OF THE EQUIPMENT BY **FoodTools**, INC. AND ARE IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

**FoodTools**, Inc. makes no warranty concerning the compliance of the equipment with any local, state, or federal laws or regulations, including without limitation to electrical, building, or other codes or requirements. Purchaser agrees to accept full responsibility for complying with such laws, regulations, codes, and requirements. **FoodTools**, Inc. makes no warranty concerning, and does not assume in this or any other instrument any obligation or liability in connection with, patent infringement suits brought against purchaser with respect to the product.

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