



INSTALLATION AND OPERATION MAINTENANCE

TSF SERIES – FRYER OWNER’S MANUAL

Models: TSF-3540, TSF-4050, TSF-6575



FOR YOUR SAFETY: Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.



WARNING: Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.



Instruction to be followed in the event the user smells gas shall be posted in a prominent location. This information shall be obtained by consulting the local gas supplier.



PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCES.

This equipment is design engineered for commercial use only.

Phone : +1 (972) 908-6100
Fax : +1 (914) 576-0605
Toll Free : +1 (800) 527-2100
Website : www.tri-starmfg.com
E-mail : tristarmfg@sbcglobal.net

P/N 300457 7/13

TRI-STAR MANUFACTURING

1307 N Watters Dr STE 180
Allen TX 75013

TABLE OF CONTENTS

Installation Instructions.....	2
Operating Instructions.....	3
Maintenance Instructions	5
Warranty	8

IMPORTANT

Installing, Operating and Service Personnel:

- Installation of the equipment should be performed by qualified, certified, licensed and/or authorized personnel who are familiar with and experienced in state/local installation codes.
- Operation of the equipment should be performed by qualified or authorized personnel who have read this manual and are familiar with the functions of the equipment.
- Service of the equipment should be performed by qualified personnel who are knowledgeable with TRI-STAR equipment.

SHIPPING DAMAGE CLAIM PROCEDURE

The equipment is inspected & crated carefully by skilled personnel before leaving factory. The transportation company assumes full responsibility for safe delivery upon acceptance of this equipment. If shipment arrives damaged:

1. **Visible loss or damage:** Note on freight bill or express delivery and have signed by the person making delivery.
2. **File claim for damages immediately:** Regardless of the extent of damages.
3. **Concealed loss or damage:** If damage is noticed after unpacking, notify the transportation company immediately and file 'Concealed Damage' claim with the transportation carrier. This should be done within fifteen (15) days from the date delivery and receipt of goods. Retain container for inspection.

INSTALLATION INSTRUCTIONS

The area around the appliance must be kept free and clear of combustibles such as solvents, cleaning liquid, broom, rags, etc.

Proper clearances must be provided at the front of the appliance for servicing and proper operation.

Provisions shall be incorporated in the design of the kitchen, to ensure adequate supply of fresh air and adequate clearance for air openings into the combustion chamber, for proper combustion, and ventilation.

For proper operation of the appliance, do not obstruct the flow of combustion and ventilation air.

The installation must conform with local codes, or in the absence of local codes, with the national fuel gas code, ANSI Z223.1 - 1988 (or latest addenda), National gas installation code, CAN/CGA - B 149.1, or the propane installation code, CAN/CGA - B 149.2 as applicable.

The appliance and its individual shut off valve must be disconnected from the gas supply piping system during any pressure testing of that system in excess of ½ PSI.

The appliance must be isolated from the gas supply piping system by closing its individual manual shut off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than ½ PSI.

The gas supply line must be at least the same size as the gas inlet of the appliance.

CLEARANCES

	Combustible	Non-combustible
Sides	6"	0"
Rear	6"	0"
Floor	6"	0"

Installation on non-combustible floor shall be with factory supplied legs or casters.

OPERATING INSTRUCTIONS

WARNING



Hot oil and hot surfaces can cause severe burns. Use caution when operating the fryer.

Do not attempt to move the fryer filled with hot oil or shortening.

Do not go near the area directly above the flue when fryer is in operation. Severe burns may be caused.

Drain hot oil in metal containers, do not use plastic buckets or glass containers.



LIGHTING INSTRUCTIONS

1. Set the thermostat and the gas cock dial on the combination gas valve to the "OFF" position.
2. Wait for five minutes.
3. Turn gas cock dial on the combination gas valve to "Pilot" position.
4. Depress the gas cock dial and apply a lighted match or taper to the pilot.
5. Hold the gas cock dial depressed for about 30 seconds or until pilot stays lit before releasing.
6. If the pilot does not stay lit, repeat step **4 and 5**.

BURNERS / THERMOSTAT OPERATION

1. After the pilot is lit, turn the gas cock dial to "ON" position.
2. Turn the thermostat dial to any temperature setting and observe the burners ignition. It should ignite within four seconds.



CAUTION: Main burners shall not be "ON" when the vessel is empty. During testing, fill the vessel with liquid (oil or water) till above the heat transfer tubes.



FLEXIBLE COUPLINGS, CONNECTORS AND CASTERS

If the unit is to be installed with casters, the installation shall be made with a connector that complies with the Standard for *Connectors for Movable Gas Appliances, ANSI Z21.69* or *Connectors for Moveable Gas Appliances, CAN/CGA-6.16*, and a quick-disconnect device that complies with the Standard for *Quick-Disconnect Devices for Use With Gas Fuel, ANSI Z21.41*, or *Quick Disconnect Devices for Use with Gas Fuel CAN1-6.9*. Locking front casters are provided to limit the movement of the appliance without depending on the connector or associated piping. A suitable strain relief must be installed with the flexible connector.

Restraining device may be attached to the back frame/panel of the unit.

All connections must be sealed with a joint compound suitable for LP gas and all connections must be tested with a soapy water solution before lighting pilots.

PREPARATION FOR USE

New units have a coating of oil on the interior of the vessel. Remove this coating with hot soapy water, washing soda, or any other grease dissolving liquid. Rinse thoroughly and drain until all residues are removed. Wipe dry.

Clean the baskets, crumb screen.

PILOT OPERATION

Check and make sure the pilot is lit. If not, refer to previous section for lighting the pilot.

BEFORE TURNING THE BURNERS ON

1. Fill the vessel with liquid shortening or oil up to the "oil level" marking.
2. Block of solid shortening should not be melted by setting it on top of tubes. This will damage the vessel and scorch fat. Either melt it first on another appliance or cut into small pieces and pack tightly below, between and above the burner tubes, without leaving any air spaces around the tubes. Turn the burners "ON" for about 10 seconds and turn "OFF" for about a minute. Repeat this "ON-OFF" cycle until all the shortening is melted. If scorching occurs, lower the "ON" time.
3. Do not overfill the vessel.

MAIN BURNER OPERATION

After the vessel is filled with liquid shortening or oil, set the gas cock dial on the combination gas valve to the "ON" position.

Turn the thermostat to desired temperature setting.

DAILY SHUT-DOWN

At the end of the day, turn the gas cock dial on the combination gas valve and the thermostat to OFF position. Where applicable turn the power switch to OFF position. Filter the oil in all fryers.

MAINTENANCE INSTRUCTIONS

CLEANING

For continued performance efficiency and longevity of your Fryer it is essential to carry out a good maintenance program.

DAILY

1. Remove and wash thoroughly all "loose" parts (basket hanger, baskets, crumb screen, etc.).
2. Wipe clean all exterior and interior accessible surfaces and parts.
3. Filter the liquid oil/shortening at the end of the day, replace if necessary. If fryer is under heavy use, filter more often during the day.

WEEKLY

1. Shut down the fryer by turning off the gas cock dial and power supply, where applicable.
2. Drain the fryer in a filter pan or steel container. Flush out sediments at the bottom of the vessel with liquid oil.
3. Close the drain valve and fill the vessel with a mixture of boil-out solution and water.
4. Relight the pilot and turn on the burners.
5. When the solution starts to boil, turn off the thermostat and let the vessel soak to soften the deposit and/or carbon spots. (Approximately 1 hour).
6. Drain off solution, scrub the insides with brush and rinse thoroughly.
7. Repeat the cleaning procedure, if necessary.
8. Wipe dry with soft towels and refill with clean oil/shortening.



WARNING: All water must be removed before adding oil or shortening. Not doing so can result in splattering of hot oil.

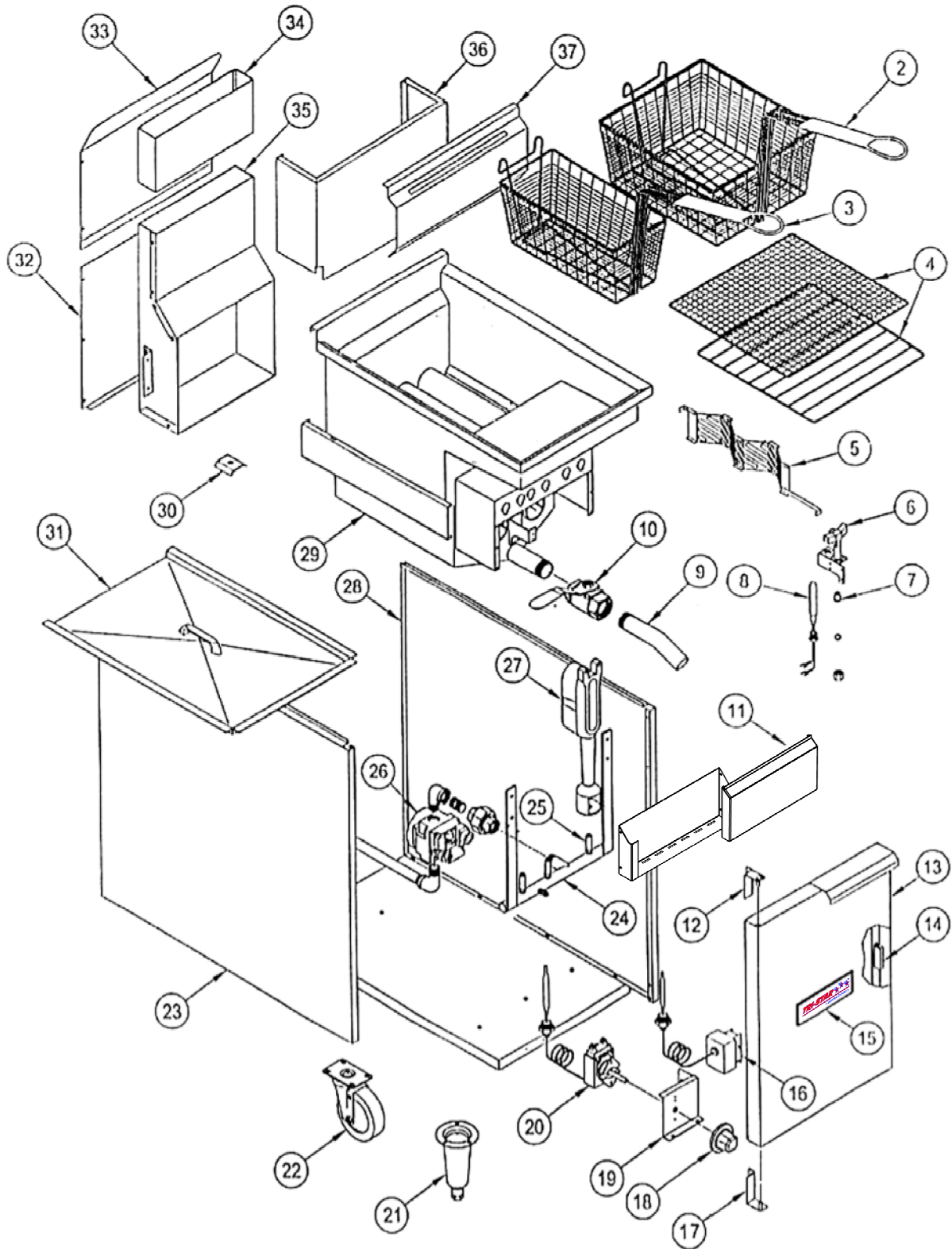


STAINLESS STEEL PARTS

Do not use steel wool, abrasive cloths, cleansers or powders to clean stainless steel surfaces. All stainless steel parts should be wiped regularly with hot soapy water during the day and a stainless steel liquid cleaner at the end of the day. To remove encrusted materials, soak in hot water to loosen the material, then use a wood or nylon scraper. NOT USE a metal knife, spatula, or any other metal tool to scrape stainless steel. Scratches are almost impossible to remove.

Contact the factory, factory representative or a local service company to perform all Maintenance and Service Repairs.

TSF TRI-STAR – FRYER SERIES



TSF TRI-STAR – FRYER SERIES

Item	Part #	Description	Item	Part #	Description
2	300359	FRYER BASKET - LARGE	35	300357 300111	FLUE FRONT FRYER 40/50 FLUE REAR FRYER 40/50
3	300189	FRYER BASKET - SMALL	36	300439	UPPER FRONT PANEL, WELDMENT
4	300922 300923	CRUMB SCREEN FINE MESH CRUMB SCREEN REGULAR	37	300152	BASKET HANGER 40/50
5	300436	DIFFUSER WELDMENT PANEL	N/S	300271	KIT, CONVERSION TO NAT TSF- 4050
6	300231	PILOT BURNER - NATURAL (FRYER)	N/S	300223	KIT, CONVERSION TO LP TSF-4050
7	300359	ORIFICE BELL #16 (LP)			
8	300157	THERMOPILE 32" FRYER			
9	300260	DRAIN EXTENSION PIPE			
10	300239	DRAIN VALVE 1 1/4			
11	300435	FRONT PANEL			
12	300443	DOOR HINGE TOP			
13	300446	DOOR ASSY FRYER 40/50			
14	8717700	DOOR MAGNET			
15	2065847	NAMEPLATE TRI-STAR SMALL			
16	300228	HI - LIMIT SWITCH			
17	300150	DOOR HINGE BOTTOM			
18	300229	KNOB THERMOST WITH DIAL (FRYER)			
19	300113	BRACKET THERMOSTAT/ HI - LIMIT			
20	300232	THERMOSTAT - FRYER			
21	311039	6" CONE LEGS			
22	340264 340265	CASTER (WITH BRAKE) - OPTIONAL CASTER (WITH OUT BRAKE) - OPTIONAL			
23	300155	SIDE PANEL - L/H			
24	300259	MANIFOLD TSF 40/50 ASSY			
25	300532 300552	ORIFICE HOOD - # 32 (NAT) ORIFICE HOOD - # 52 (LP)			
26	300188 300225	VALVE, COMBO GAS NAT FRYER VALVE, COMBO GAS LP FRYER			
27	300191	BURNER			
28	300156	SIDE PANEL - R/H			
29	300120	VESSEL WELD ASSY (3 TUBE FRYER TANK)			
30	300114	PROBE HOLDER THERMOSTAT/ HI-LIMIT			
31	300440	VESSEL COVER W/ HANDLE - OPTIONAL			
32	300456	BACK PANEL BOTTOM			
33	300138	BACK PANEL TOP			
34	300445 300444	UPPER FLUE PLATE UPPER FLUE			

TRI-STAR TERMS OF SALE & LIMITED WARRANTY FOR U.S.A. INSTALLATION

TERMS - 1%-10 days, n/30 days subject to credit approval. All accounts past due are subject to 1-1/2% per month service charge.

FOB - Factory / Santa Ana, CA 92707

PRICES - Prices are subject to change without notice. Prices do not include sales tax. All prices are in U.S. Dollars.

POSSESSION - of this price list does not constitute an agreement or an offer to sell.

NOTE - The company reserves the right, without prior notice, to make changes and revisions in product specifications, design and material; which in the opinion of the company will provide greater performance, efficiency, and durability.

SHIPMENTS - The Company's responsibility ceases with delivery of goods to the transportation company after receiving a receipt for them in "Good Order". In case of freight damage, do not refuse shipment, but call agents attention to its condition and make a careful note of details on freight bill before charges are paid. In case of concealed damages, immediately notify freight agent in writing (retaining a duplicate copy) notifying them of your intention to file claim, so that they may inspect shipment and provide necessary forms for filing claim. Retain all packaging and do not remove from delivery site.

RETURNED GOODS - Returned goods are subject to a 20% restocking charge and the cost of reconditioning. Prior to shipping, a Return Goods Authorization (RA) number must be granted by Tri-Star all returned goods must be shipped freight prepaid. Shipments without RA number will be refused. Custom units built to buyer specifications may not be returned or canceled.

LIMITED WARRANTY

TRI-STAR warrants its new Product (s) to be free from defects in material and workmanship for a period of one (1) year from the original date of installation not to exceed 18 months from date of shipment from our factory. Equipment sold and installed for residential use, or outside the continental United States is excluded from this warranty.

This warranty is limited to Product(s) sold to the original commercial user. The liability of **TRI-STAR** is limited to, at **TRI-STAR's** option, the repair or replacement of any part found by **TRI-STAR** to be warranted herein. **TRI-STAR** shall bear the normal labor charges for repair or replacement to the extent that such repair or replacement is performed within 35 miles of the office of an authorized service agency, within the continental United States and during regular (straight time) hours. Travel outside of the 35 miles and any work performed at overtime or weekend rates would be the responsibility of the owner/user. Defective parts must be returned to **TRI-STAR**, freight prepaid, for Warranty Inspection.

TRI-STAR assumes no responsibility for any product not installed properly in accordance with the instructions supplied with the equipment. Any equipment which has been modified by unauthorized personnel or changed from our original design is not covered under this Warranty. Furthermore, **TRI-STAR** assumes no obligation for any product which has been subject to misuse, abuse or harsh chemicals. Normal maintenance as outlined in the instructions is the responsibility of the owner-user and is not a part of this warranty. * Ninety days on Cast Iron Parts.

Light bulbs, porcelain, and glass components are excluded from this warranty.

Fryers: one year parts and labor, Limited Warranty on the fry tank: 5 years, prorated on stainless steel fry tank. Normal parts wear and maintenance is also not covered by this warranty. This warranty is in lieu of any other agreement, expressed or implied, and constitutes the only warranty of **TRI-STAR** with respect to the products.

This states the exclusive remedy against **TRI-STAR** relating to the product(s) whether in contract or in tort or under any other legal theory, and whether arising out of warranties, representations, instruction, installation or defects from any cause.

TRI-STAR shall not be liable whether in contract or in tort or under any other legal theory, for loss of revenue or profit, or for any substitute use or performance, or for incidental, indirect, special or consequential damages, or for any other loss or cost of similar type.

Proper installation, initial check out, air shutter adjustments, or normal maintenance such as lubrication, adjustment or calibration of controls is the responsibility of the dealer, owner-user or installing contractor and is not covered by this warranty.



Prices listed in this catalog are in U.S. Dollars. All Prices are subject to change without prior notification. TRI-STAR is not responsible for printing errors in pricing or specifications.



Phone : +1 (714) 424-9380
Fax : +1 (714) 424-9385
Toll Free : +1 (866) 782-7462
Website : www.tri-starmfg.com
E-mail : tristarmfg@sbcglobal.net

TRI-STAR MANUFACTURING

729, 3rd Avenue,
Dallas, TX 75226.