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FS-TFC FS-RO-100G-A

FS-TFC 5-Stage Reverse Osmosis Water Filtration System

Model: FS-RO-100G-A

PRODUCT OVERVIEW

The FS-TFC 5-Stage Reverse Osmosis Water Filtration System is designed to provide clean, safe, and great-tasting water directly from your tap. Utilizing advanced reverse osmosis technology, it effectively removes a wide range of contaminants, ensuring high-quality water for drinking, cooking, and other household needs.



Figure 1: Complete FS-TFC 5-Stage Reverse Osmosis Water Filtration System including the main filter unit, storage tank, and dedicated faucet.

KEY FEATURES

- **Superior Filtration:** Removes up to 99.999% of contaminants including chlorine, taste, odor, VOCs, fluoride, arsenic, lead, nitrates, and heavy metals.
- **High Flow Rate:** Designed for household and commercial use, providing 18 liters per hour (1 cup in 5 seconds) at 60 PSI.
- **Compact Design:** Mini size (11.5"L x 5"W x 11.5"H) fits conveniently under standard kitchen sinks and can be wall-mounted.
- **Cost-Effective Operation:** Operates without electricity and features a 1:1 low drain ratio, minimizing water waste. Annual filter replacement cost is approximately \$50.
- **Easy Installation:** Designed for do-it-yourself installation with all necessary parts and clear instructions included.
- **Durable Faucet:** Includes a 304 stainless steel, lead-free faucet with a brushed finish and ceramic disc valve for long-lasting performance.

SYSTEM COMPONENTS

The FS-TFC Reverse Osmosis system includes the following main components:

- 5-Stage Filter Unit (Pre-filters, RO Membrane, Post Carbon Filter)
- Pressurized Water Storage Tank
- Dedicated Faucet
- PE Pipe for water inlet & outlet connection
- Water Feed Valve
- Tank Valve
- Drain Saddle
- Wrench for filter replacement
- Extra Connectors

REVERSE OSMOSIS SYSTEM PARTS LIST



Extra Replacement Filter Set
High quality 3 stage pre-filter and post carbon filter



Water Feed Valve
suitable for 1/2" & 3/8" cool water pipe



Wrench
Wrench for replacing filter easily.



PE Pipe
25 feet PE pipe for water inlet & outlet connection



The central image shows the main components of the FS-TFC Reverse Osmosis System: a 5-stage filter unit with three pre-filters (PPF, GAC, PPF) and a post-carbon filter, a pressurized water storage tank, a dedicated faucet, and a water feed valve. The filter unit is labeled 'FS-TFC WATER PURIFIER' and 'RO T33'.



Extra Connectors
Extra quick fitting connectors for DIY installation



Tank Valve
Quick connect 1/4" tank ball valve



Drain Saddle
Drain saddle for fixing waste water pipe



User Manual
Details about the system and how to install it

Figure 2: Detailed view of all components included with the FS-TFC Reverse Osmosis System.

SETUP AND INSTALLATION

The FS-TFC system is designed for straightforward DIY installation under a standard kitchen sink. Follow these general steps for setup:

1. **Prepare the Installation Area:** Ensure sufficient space under the sink for the filter unit and storage tank.
2. **Install the Faucet:** Mount the dedicated faucet on your sink or countertop.
3. **Connect Water Supply:** Install the water feed valve to your cold water line and connect it to the filter unit.
4. **Connect Drain Saddle:** Attach the drain saddle to the sink's drain pipe to dispose of wastewater from the RO process.
5. **Connect Storage Tank:** Connect the storage tank to the filter unit using the provided tank valve.
6. **Connect Filtered Water Line:** Route the filtered water line from the filter unit to the dedicated faucet.
7. **Initial Flush:** After installation, turn on the water supply and flush the system for at least 15 minutes to purge any carbon fines or air from the new filters. This also allows the storage tank to fill.

For detailed visual instructions, refer to the included user manual and online video resources provided by FS-TFC Water System.

OPERATING INSTRUCTIONS

Once installed and flushed, the FS-TFC Reverse Osmosis system operates automatically. The storage tank will fill with purified water, and the dedicated faucet provides on-demand access to clean water.

- **Dispensing Water:** Turn the handle on the dedicated faucet to dispense purified water. The flow rate will be strong when the tank is full and may decrease as the tank empties.
- **Tank Refill:** The system will automatically refill the storage tank after water is dispensed. This process can take an hour or more depending on water pressure and usage.
- **Faucet Operation:** The main kitchen faucet operates independently for regular hot and cold water. The dedicated RO faucet is solely for purified water.



Figure 3: The durable and stylish dedicated faucet for purified water.

MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your FS-TFC Reverse Osmosis system. This primarily involves timely filter replacement.

Filter Replacement Schedule:

Stage	Filter Type	Description	Replacement Interval
1st Stage	5 µm Sediment Filter (PPF)	Removes large particles such as sand, dirt, silt, and rust.	6 months
2nd Stage	GAC Filter	Deeply adsorbs color, odor, chlorine, and organic matter.	6 months

Stage	Filter Type	Description	Replacement Interval
3rd Stage	1 µm Sediment Filter (PPF)	Removes sediment, suspended matter, colloids, and impurities.	6 months
4th Stage	100 Gallon RO Membrane	Removes up to 99.9% of bacteria, heavy metals, and chemicals.	12-24 months
5th Stage	Post Carbon Filter (T33)	Further removes odor, residual chlorine, and improves taste.	12 months

FILTER CARTRIDGE REPLACEMENT SCHEDULE



1st Stage **5 µm Sediment Filter**
removes large particles such as sand, dirt, silt, and rust.
6 months

2nd Stage **GAC Filter**
deeply adsorbs color, odor, chlorine and organic matter.
6 months

3rd Stage **1 µm Sediment Filter**
removes sediment, suspended matter, colloids, impurities.
6 months

4th Stage **100 Gallon RO Membrane**
removes up to 99% of bacteria, heavy metals and chemicals.
12-24 months

5th Stage **Post Carbon Filter**
further removes odor, residual chlorine, improve the taste.
12 months

Figure 4: Recommended filter replacement schedule for optimal water quality.

Use the provided wrench to unscrew and replace filter cartridges. Always shut off the water supply before performing any maintenance.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Low Water Flow from Faucet	Storage tank is empty or low on pressure.	Allow time for the tank to refill (1-2 hours). Check tank air pressure (should be 5-7 PSI when empty).
Poor Water Taste/Odor	Post carbon filter (5th stage) needs replacement.	Replace the T33 Post Carbon Filter. Ensure initial flush was sufficient.
Excessive Wastewater to Drain	RO membrane is clogged or flow restrictor is faulty.	Inspect and replace the RO membrane if necessary. Check flow restrictor.
Leaking Connections	Loose fittings or damaged O-rings.	Ensure all quick-connect fittings are fully seated and secured with locking clips. Check for damaged O-rings and replace if needed.

If issues persist, contact customer support for assistance.

SPECIFICATIONS

Attribute	Value
Brand	FS-TFC
Model Name	FS-RO-100G-A
Special Feature	Reduce TDS
Product Dimensions (L x W x H)	11.5" x 5" x 11.5"
Installation Type	Under Sink
Power Source	AC (No electricity required for filtration process)
Item Weight	13 Pounds
Maximum Flow Rate	18 Liters Per Hour
Operating Pressure Range	30-85 PSI
Certification	NSF/ANSI 58
Color	White

WARRANTY AND SUPPORT

The FS-TFC 5-Stage Reverse Osmosis Water Filtration System comes with a **2-year manufacturer warranty** upon registration. FS-TFC also provides **lifetime support** to ensure your satisfaction and peace of mind. For warranty claims, technical assistance, or any questions regarding your system, please contact FS-TFC customer service through their official channels.