

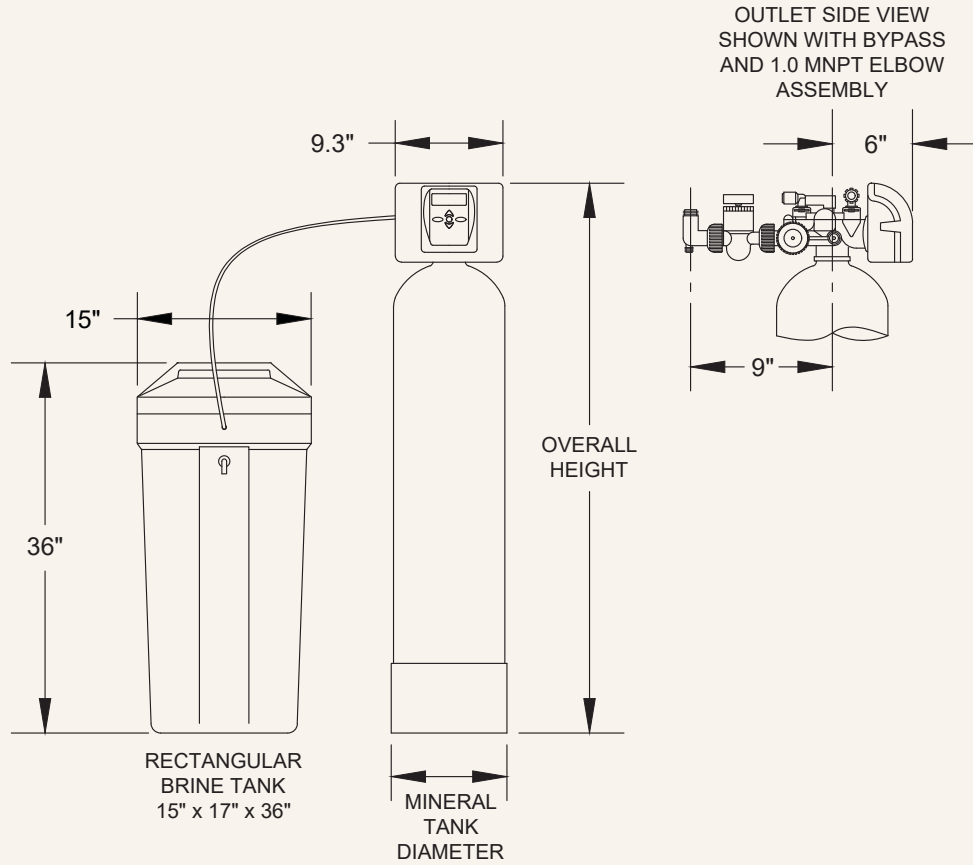


# LANCASTER

## WATER TREATMENT

DIAMOND LINE LXTANFES – TANNIN GUARD

### X-FACTOR SERIES LXTANFES TANNIN GUARD



LXTANFES PROGRAM CYCLES*	STANDARD TANNIN & IRON WATER SOFTENER	
Model Number	7-LXTANFES-100B	7-LXTANFES-150B
1st: Fill - LBS NaCl (Gallons)	10 (3.33)	15 (5.0)
2nd: Softening - Minutes (Gallons)	60 (0)	60 (0)
3rd: Backwash - Minutes (Gallons)	10 (10)	10 (13)
4th: Regenerant Draw DN & Slow Rinse - Minutes (Gallons)	50 (18.5)	50 (26)
5th: Air Release - Seconds (Gallons)	90 (1.5)	90 (1.95)
6th: Backwash - Minutes (Gallons)	10 (10)	10 (13)
7th: Rinse - Minutes (Gallons)	10 (10)	10 (13)
8th: End	-	-
Total Gallons to Drain**	53.33	71.95
Total Minutes	148.2	151.5

\*Downflow Regenerant, Prefill Factory Program Settings

\*\*Based on 50 PSI Inlet Pressure



# X-FACTOR SERIES LXTANFES TANNIN GUARD

LXTANFES SPECIFICATIONS	STANDARD TANNIN & IRON WATER SOFTENER	
Model Number	7-LXTANFES-100B	7-LXTANFES-150B
Inlet/Outlet Fitting Options (Inches) <sup>1</sup>	0.75 - 1.0 <sup>1</sup> - 1.25 - 1.5	0.75 - 1.0 <sup>1</sup> - 1.25 - 1.5
Bypass Included	Yes	Yes
Drain Fit. Elb. NPT or OD Poly Tube Size (Inches)	3/4 NPT or 5/8 Tube	3/4 NPT or 5/8 Tube
Water Pressure Range (PSI)	20 - 100	20 - 100
Water Operating Temperature Range (°F)	35 - 100	35 - 100
Influent Maximum Water Hardness (GPG)	10	10
Influent Maximum Ferrous Iron (PPM) <sup>3</sup>	1	1
Plug-In Power Adapter Input (VAC - Hz - A)	120V AC - 60Hz - 0.35A	120V AC - 60Hz - 0.35A
Plug-In Power Adapter Output (VDC - A)	15V DC - 0.5A	15V DC - 0.5A
Plug-In Power Adapter Cord Length	15 FT	15 FT
PC Board Relay Terminal Block DC Output (V)	12V DC	12V DC
3 Volt Lithium Coin Cell Battery (Type)	2032	2032
Service Flow Rate at 15 PSI Pressure Drop (GPM) <sup>4</sup>	15	22
Overall Height (Inches)	54.2	55.5
Mineral Tank Size: Diameter x Height (Inches)	10 x 47	12 x 48
Bottom Distributor Type	Plate	Plate
Top Basket Distributor	No	No
Top Deflector	Yes	Yes
Cubic Feet of Tannin Removal <sup>2</sup> Anion Resin Top Dressing (LBS)	0.27 (12)	0.39 (18)
Cubic Feet of Fine Mesh Cation Resin (LBS)	0.73 (36.5)	1.11 (55.5)
#20 Flint, Medium & Fine Garnets Underbed Layer	Yes	Yes
Brine Tank Size (Inches)	15 x 17 x 36 <sup>6</sup>	15 x 17 x 36 <sup>6</sup> (Salt Grid)
Brine Tank Capacity (LBS NaCl)	275	275
Drain Line Flow Control (GPM)	1.0	1.3
Brine Line (Re-Fill) Flow Control (GPM)	0.5	0.5
Injector (Color)	IE - White	IF - Blue
Fine Mesh Cation Resin Capacity (Grains) <sup>5</sup>	21,000	32,000
Salt Used Per Regeneration (LBS)	10	15
Water to Drain at 50 PSI Inlet Pressure (Gallons)	53.3	72.0

<sup>1</sup>1.0 MNPT Elbow Standard - Options Available

<sup>2</sup>Tannins are naturally occurring organic material, byproducts of fermentation, i.e. created as water passes through peaty soil and decaying vegetation. Tannins can cause water to have anywhere from a faint yellow to tea-like color, causing staining. Tannin levels as low as 0.5 milligrams per liter can cause a yellow discoloration in water. Tannin levels of 1 ppm or greater can dramatically reduce the life of softener resin and iron filter media. An effective POE method for tannin removal (typically the lighter yellow staining variety) is top dressing a water softener with an organic scavenging anion exchange resin; top dressing works best with 10 gpg or less hardness (anion resin will scale) and less than 1 ppm iron.

<sup>3</sup>Ferrous iron ("clear-water iron"): Water comes out of the faucet clear, but turns red or brown after standing. Frequent regeneration required - Day Override factory set for 4 days between regenerations. Influent water to be treated should contain a minimum of 3 gpg of hardness.

Example: For 1 ppm ferrous iron, water hardness should not be less than 3 gpg.

This allows hardness dispersion with the iron on the exhausted resin, helping facilitate the removal of iron from the resin bed during regeneration. The Fine Mesh Resin bead size provides improved kinetics where extra surface area and a short diffusion path are needed for iron removal. Ferrous iron readily converts to ferric iron in the presence of oxygen, chlorine, or other oxidants. Ferric iron is insoluble and should be removed by filtration. Even if the influent has very low oxygen (which is very likely for the iron to remain in the ferrous state), the brine tank is never sealed therefore the brine used to regenerate contains oxygen. Ferrous iron precipitates right at the surface of the resin beads, potentially plugging up the resin bead pores, coating the beads and plugging up the flow spaces between the beads. Resin cleaner added to the brine solution is recommended for cleaning the softener resin bed.

<sup>4</sup>Flow rates in the table may exceed resin manufacturer's recommended maximum flow rates. Selecting a system flow rate by pressure drop alone does not guarantee that the system will provide softened water.

<sup>5</sup>Factory program setting based on 29,000 grains capacity per cu. ft. @ 10 LBS per cu. ft. salt dose. Days between Regen (Day Override) is factory set to 4 days. Regeneration should occur every 4 days max, or sooner depending on water quality.

<sup>6</sup>See Diagram