

# Freedom TR Series

## Water Softener

### **Reduce Tannins, Iron, Hardness, Nitrates, and Nitrites:**

A special blend of resin is used in the TR series to soften water and remove staining elements like tannins and iron. The unit is also capable of reducing nitrates and nitrites.

### **Optimized Regeneration:**

Soft water from the regenerated unit is used to regenerate the spent tank, increasing the efficiency of the brine and regeneration.

### **Continuous Soft Water:**

24 hours a day with one unit in service and one unit in standby.

### **Solid State Metered Control:**

Displays Flow Rate, Capacity Remaining, Time, Days until Regeneration, and Total Volume Used.

### **Corrosion Resistant:**

Norell<sup>®</sup> Body Control Valve with integrated easy access flow meter.

### **Bypass Assembly Included:**

Simple low cost installation.

### **Optional Regeneration Settings:**

Meter Immediate, Meter Delayed, Time Clock Delayed, and External Contact.

### **Easy to Retrieve Performance Data:**

Retrievable Daily water usage log up to 63 days.

### **Saved/Lockable Programming:**

Password protection prevents unwanted changes to program settings.  
Lithium Ion Battery backup.

### **Available 1" or 1.25" Inlet/Outlet**

### **One Control, Two Tanks**

Soft Water Regen, Minimize Salt Usage, Double the capacity and Lifespan of a single tank system.





## DTRS System Specifications

MODEL	IRON CAPACITY @10lbs/ft <sup>3</sup> Salt	TANNIN CAPACITY @10lbs/ft <sup>3</sup> Salt	NITRATE CAPACITY @20+lbs/ft <sup>3</sup> Salt	NITRITE CAPACITY @20+lbs/ft <sup>3</sup> Regen	SOFTNER CAPACITY & SALT				FLOW RATE			SOFTENER TANK(S)			#20 Gravel	BRINE TANK	
					MAXIMUM		MINIMUM		SERVICE	PRESSURE DROP	BACK- WASH	DIMEN'S	CAT. RESIN	AN. RESIN		DIMEN'S	CAPACITY
	(ppm gal)	(ppm gal)	(ppm gal)	(ppm gal)	Capacity (gpg gal)	Salt/ Regen	Capacity (gpg gal)	Salt/ Regen	(gpm)	(psi)	(gpm)	Dia x Ht (in)	Cu Ft	Cu Ft	(lbs.)	Dia x Ht (in)	(Lbs.)
DTRS-100	4,125	1,250	8,300	650	22,500	15 lb	18,750	10 lb	3	5.6	2.2	9 x 48	0.75	0.25	10	18 x 33	300
DTRS-150	5,500	1,250	8,300	650	30,000	19 lb	25,000	15 lb	3	2.7	2.7	10 x 54	1.25	0.25	10	18 x 40	400
DTRS-200	8,250	2,500	16,600	1,300	45,000	30 lb	37,500	20 lb	5	3.9	3.2	12 x 52	1.5	0.5	20	18 x 40	400
DTRS-250	11,000	2,500	16,600	1,300	60,000	38 lb	50,000	25 lb	5	3.2	4.2	13 x 54	2	0.5	25	18 x 40	400
DTRS-300	11,000	5,000	33,200	2,600	60,000	45 lb	50,000	30 lb	10	6.9	5.3	14 x 65	2	1	40	24 x 50	900

### Independantly Tested Resin:

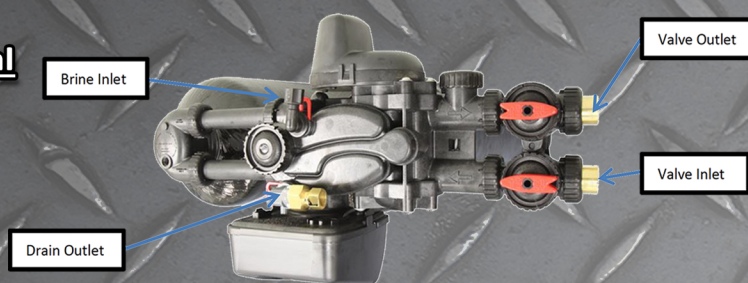
Every batch of high capacity virgin polystyrene softening resin is tested to ASTM D2187-94 to assure its quality and performance.

### Fiberglass Wound Tanks:

Mineral tanks have a polyethylene inner shell that is externally wound with continuous fiberglass filament for seamless corrosion proof construction. These tanks are 1/3 the weight of a comparable size steel tank for ease of installation and handling.

### Utility Specs:

	<u>U.S.A.</u>	<u>International</u>
Supply Voltage:	120V AC	230V AC
Supply Frequency:	60 Hz	50 Hz
Output Voltage:	12V AC	12V AC
Output Current:	500mA	500mA
Temperature:	40-110°F	
Pressure:	20-125 psi	



### What are Tannins?

Tannins are typically found in shallow wells, swampy or marshy areas and costal areas. They are the result of nature's fermentation process as water passes through the ground in peaty areas or through decaying vegetation. The color yellow is a sign that you have tannins, such as yellow staining on laundry, toilet fixtures and yellow colored water.

### What are Nitrates and Nitrites?

Nitrates and nitrites are nitrogen-oxygen chemical units. The major sources of nitrate in drinking water are runoff from fertilizer use; leaking from septic tanks, sewage, and erosion of natural deposits.

Infants below six months who drink water containing nitrate in excess of the maximum contaminant level, (10 ppm) could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.



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