



CONTROL  
VALVE



PRESSURE  
TANK



**INCLUDES PRO  
EASY FEEDER  
STARTER KIT**



## Water Softener

### Water Softener with 1" Porting and Iron & Manganese Removal

The 489DFSIM Series system offers a cost-effective and reliable solution for treating hard water and removing iron contamination. Third-party certified for iron removal, the SIM uses fine mesh ion exchange resin to remove clear water iron and manganese while softening water.

#### KEY FEATURES

**Maximum Hardness:** Softens up to 75 grains per gallon of hardness.

**Maximum Total Iron:** Removes 10.0 ppm total iron in water with a pH below 7.2 and 7.0 ppm total iron in water with a pH above 7.2.

Total Iron Calculation = (Iron ppm x 1) + (Manganese ppm x 2).

**Maximum Manganese:** 5.0 ppm (see total iron calculation).

**Tank Features:** Brine tank with safety float, air check and injection molded brine grid to reduce bridging. Moisture wicking neoprene tank jacket included on all pressure tanks.

#### VALVE FEATURES

**True 1" Porting**  
For high-flow applications.

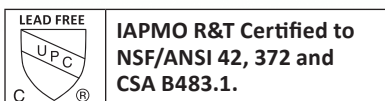
**1" 90-Degree Elbows**  
Included for easy installation.

**Timesaving Quick Connect Fittings & Pre-Installed Bypass**  
Quick connect fittings on bypass, drain line (10' included), brine line and power cord.

**Unique Bypass Design**  
Integrated turbine meter saves space, eliminates connections and is more durable.

**Four Line Touch Pad LCD Display** No-touch rotating information display. Just set the time, date, and hardness.

**48-Hour Programming Memory** Automatic programming restore for up to 48 hours during power loss.



IAPMO R&T Certified to  
NSF/ANSI 42, 372 and  
CSA B483.1.

# Technical Specifications

## PROFESSIONALLY ENGINEERED FOR PERFORMANCE

MODEL NUMBER	NVO489DFSIM-100	NVO489DFSIM-150	NVO489DFSIM-200	NVO489DFSIM-300
Item Number	15020684	15020685	15020686	15020687
FACTORY SETTINGS - IRON & MANGANESE				
Salt Used Per Regeneration	12.0 lbs	18.0 lbs	24.0 lbs	36.0 lbs
Water Used Per Regeneration	124.0 gal ± 10%	215.0 gal ± 10%	274.0 gal ± 10%	278.0 gal ± 10%
Hardness Removal (Grains)	30,000	45,000	60,000	90,000
Filter Media Volume - Cubic Feet	1.0 ft³	1.5 ft³	2.0 ft³	3.0 ft³
Garnet	Yes	Yes	Yes	Yes
Pressure Tank Size (Inches)	10 x 54	12 x 52	13 x 54	14 x 65
Media Loaded	Yes	Yes	No	No
Salt Storage Capacity	270 lbs	350 lbs	350 lbs	420 lbs
Flow Rate @ 15 psi Pressure Drop	11.0 US gpm	11.2 US gpm	12.2 US gpm	12.6 US gpm
Flow Rate @ 25 psi Pressure Drop	15.0 US gpm	15.1 US gpm	16.2 US gpm	16.6 US gpm
Backwash Flow Rate	2.4 US gpm	4.0 US gpm	5.0 US gpm	5.0 US gpm
Shipping Weight	120 lbs	161 lbs	214 lbs	300 lbs
Regeneration Type	DOWNFLOW (COCURRENT)			
Maximum Hardness	75 GRAINS PER GALLON			
Maximum Total Iron (Ferrous)	10.0 PPM TOTAL IRON FOR PH < 7.2			
Total Iron = (Iron ppm x 1) + (Manganese ppm x 2)	7.0 PPM TOTAL IRON FOR PH >= 7.2			
Maximum Manganese (See Total Iron)	5.0 ppm			
Resin Type	AQUAFINE® FINE MESH ION EXCHANGE RESIN			
Plumbing Connections	INCLUDES 1" 90° NPT ELBOWS			
Electrical Requirements	INPUT 120V 60 Hz - OUTPUT 12V 650mA			
Water Temperature Limits	MIN 40° - MAX 110° F (4° - 43° C)			
Water Pressure Limits	MIN 30 - MAX 125 PSI (207 - 862 KPA)			

Above units supplied with easy feeder and 64oz bottle of Rescare.

## DIMENSIONS

NVO489DFSIM	100	150	200	250
TANK/VALVE A x B (inches)	62.25 x 10.0	60.5 x 12.0	62.25 x 13	74.25 x 14.0
BRINE TANK C x D (inches)	18.1 x 34.5	20.3 x 37.4	20.3 x 37.4	23.0 x 40.5



## QUICK LINKS



Homeowner's Manual



Installation Guide



Maintenance Guide



Trouble Shooting Guide



Parts Breakdown



Programming Guide



Warranty Sheet

