

Want to Know More?

Additional information and detailed specifications about North Star water softeners and drinking water products are available online at www.NorthStarConditioning.com.

NORTH STAR WATER SOFTENERS

Warranty*

(See Owner's manuals for specifics.)

Softeners

- 1 year on complete unit
- 3 years on electronic control board
- 3 years on valve
- 5 years on salt storage tank
- 10 years on mineral tank

Reverse Osmosis

- 1 year on parts
- 90 days on membrane

*From date of installation.



North Star®
A Better Life for You

1890 Woodlane Drive • Woodbury, MN 55125
(phone) 1.800.972.0135 (fax) 651.739.5293
www.NorthStarConditioning.com

For further information contact:



0690317

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The Professionals' Choice



To protect your investment.

North Star®
A Better Life for You

NORTH STAR WATER CONDITIONING

The Professionals' Choice

How a Water Softener Protects Your Investment:

- Better lathering of shampoos and soaps.
- Makes your skin feel smoother.
- Makes cleaning the shower easy.



- Protects your plumbing, dishwasher, clothes washer, water heater, faucets and fixtures and washbasins from damaging hard water deposits.



- Leaves less soap residue so your showers, tubs and sinks are easier to clean.



- Gives you cleaner dishes with less spotting.



- Provides softer, cleaner, brighter clothes—using 1/3 less detergent.
- Helps your clothes last longer.



- Less spotting on glassware.
- Can improve ice quality.



CITY WATER SUPPLY

Increases
the **heating efficiency**
of your **water heater**
up to **29%.**



Example of mineral buildup in an unprotected water heater.

NORTH STAR WATER CONDITIONING

The Professionals' Choice



Why Choose North Star?

North Star is the choice of professionals for four reasons: Experience, quality, innovation and service.

Experience

North Star is an established company with a reputation for quality, reliability and service since 1925. *That's experience.*

Quality

Quality is built into every North Star water softener. North Star manufactures 95% of every water softener part. North Star's manufacturing facility is ISO 9001-2000 certified to ensure the highest level of quality. In addition, North Star water softeners are designed and built with fewer moving parts—and no metallic parts to become rusted or corroded. *That's quality.*

Innovation

North Star uses advanced filtration technology and state-of-the-art computer controls to give you uniformly consistent softened water—together with the greatest salt and water savings possible. *That's innovation.*

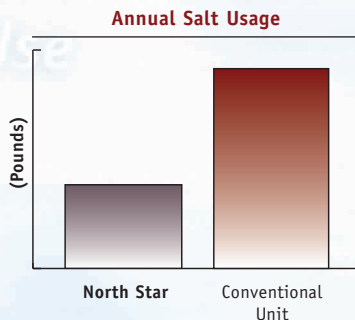
Service

North Star water softeners are The Professionals' Choice and are sold exclusively through professional contractors so you know the job will be done right the first time. Also, each North Star water softener is backed by an industry-leading warranty ensuring quality and reliability. *That's service.*

*Water is your
home's most
precious
resource.*

**Up To 60% Less
Salt Use**

*With Patented
North Star "Look
Ahead" Technology*



Why Choose North Star Water Softeners?

North Star water softeners are the professionals' choice. Here's why.

**24 Volt
Electrical
System:**
Reduces
electrical
hazards.

**High
Capacity
Resin:**
Special
long-life
resin.

Resin Bed Agitator:
North Star water softeners use water pressure to constantly agitate the resin bed. This keeps the bed free of iron, dirt and other solids so the softener runs at peak efficiency and capacity.

"Look Ahead" Technology: The brains of the softener! Our patented programming monitors your water use and determines when a regeneration of the softener is needed.

**Counter-Current
Regeneration:**
North Star pioneered this method where brine water is drawn into the bottom of our resin tanks which enhances the regeneration process. This is the preferred method but practiced by only select manufacturers.

**High Impact Salt
Storage Tank:**
High-density
polyethylene.

**Brine Valve
Assembly:**
Proven design
ensures precise
brining for the
life of the softener.

**Double-Lined,
Reinforced Mineral
Tank:** Double-lined for
strength and durability.

Learn How It Works

Go to www.NorthStarConditioning.com
to see an animated water softener.

NORTH STAR WATER CONDITIONING

The Professionals' Choice



North Star is the
choice of
professionals

North Star Ultra Phone Diagnostics

If you ever have a problem with a North Star Ultra-equipped water softener, just touch the ESP phone symbol on the control panel, call the toll-free number on the display, answer a few questions, and hold the phone to the face plate. The Ultra electronics will then transmit its operating history and current operating data. A service technician will analyze the data and determine whether an adjustment is needed. This saves you service calls, time and money.

ELECTRONIC
SYSTEM PROFILE

(Ultra Demand-UD)



(Electronic Demand-ED)



Which North Star Water Softener Is Right for You?

All North Star water softeners are built with the same quality and efficiency and are designed to save you time and money. Which model is right for you? Use the steps below to help guide you in your decision.

Step 1—Capacity

Determine the grain capacity of the unit for you. Family size, peak flow rate needs, hardness and iron minerals in water, and desired regeneration frequency, are some of the considerations to use when sizing the proper system. The chart below is a general reference.

MINIMUM CAPACITY NEEDED

Number of People in House	Grains of Hardness in Water			
	3-6	5-11	10-21	21+
2	15,000–30,000 (Light)			
3		25,000–30,000 (Medium)		
4				
5+				40,000+ (Heavy)

Step 2—Style

Choose between the space saving cabinet models or the versatile two-tank models.

Step 3—Electronics

With some models you can choose the electronic package.

Ultra Demand—UD

- Backlit LCD Display—Easier to read.
- Perfect for basement or poorly lit locations.
- Features patented “Look Ahead” technology for peak performance.
- Quick Set-up. Set the time and hardness and you are done.
- Display shows:
Time, Hardness, Regeneration Time
% Remaining Capacity, Current Flow
Total Daily Usage and Average Daily Usage
- Efficiency Selector—Choose either normal or high efficiency mode.
- Diagnostics:
Electronic Self Diagnosis, Days in Service
Total Number of Regenerations, Turbine Check and Switches Check
- Gallons/Liters choice
- 12 or 24 hour choice
- Selectable Fixed Recharge Frequency
- Adjustable Backwash Setting

Electronic Demand—ED

- Standard LCD Display.
- Features patented “Look Ahead” technology for peak performance.
- Quick Set-up. Set the time and hardness and you are done.
- Display shows:
Time, Hardness and Regeneration Time
- Efficiency Selector—Choose either normal or high efficiency mode.

NORTH STAR WATER CONDITIONING

The Professionals' Choice

Specifications

CABINET MODELS (All-in-one construction)

Model	Max Capacity (Grains)	Resin (ft³)	Standard Connection Size	Valve	Rated Service Flow Rate (gpm)	Rated Clearwater Iron Removal (ppm)	Electronics	Efficiency (grains removed per lb of salt)
NSC15ED	15,800	0.5	*3/4"	Standard	6	3	ED	4680
NSC25ED	25,000	0.7	*3/4"	Standard	8	7	ED	5060
NSC30UD	30,100	0.8	*3/4"	Standard	8	8	UD	5060
NSC30UD1	30,200	0.89	**1"	High Flow	9	8	UD	4950
NSC40UD1	39,000	1.06	**1"	High Flow	10	10	UD	5360

TWO-TANK MODELS (Separate resin tank and brine tank, Versatile installation options)

Model	Max Capacity (Grains)	Resin (ft³)	Standard Connection Size	Valve	Rated Service Flow Rate (gpm)	Rated Clearwater Iron Removal (ppm)	Electronics	Efficiency (grains removed per lb of salt)
NST25ED†	25,000	0.7	*3/4"	Standard	8	7	ED	5060
NST30UD	30,100	0.8	*3/4"	Standard	8	8	UD	5060
NST45UD1	45,100	1.25	**1"	High Flow	12	12	UD	5360
NST70UD1	70,000	2.0	**1"	High Flow	16	20	UD	5360

*1" adapters available

† Comes with Clear-Vu™ tank wrap in place of resin tank shroud

**1 1/4" and 1 1/2" adapters available

Dimensions

Model	A	B	C	D	E
Cabinet Models					
NSC15ED	32"	27"	11 1/2"	18 3/4"	—
NSC25ED	48 3/4"	41 1/4"	18 1/4"	—	—
NSC30UD	48 3/4"	41 1/4"	18 1/4"	—	—
NSC30UD1	50 3/8"	41 5/8"	18 1/4"	—	—
NSC40UD1	50 3/8"	41 5/8"	18 1/4"	—	—
Two-Tank Models					
NST25ED	48 3/4"	41 1/4"	11 1/2"	39"	18 1/4"
NST30UD	48 3/4"	41 1/4"	11 1/2"	39"	18 1/4"
NST45UD1	50 3/8"	41 5/8"	14"	39"	18 1/4"
NST70UD1	64"	55 1/2"	14"	39"	18 1/4"

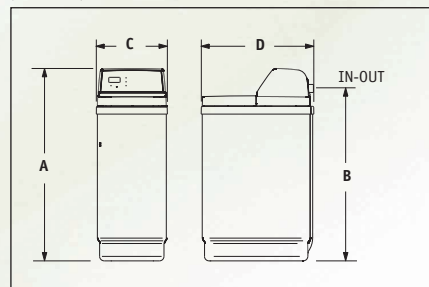
Note: All models include by-pass valve, manual, transformer, drain tubing and installation parts bag.

SAMPLE NORTH STAR MODEL NUMBER BREAKDOWN:

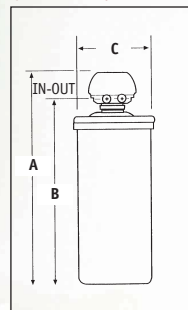
NS C 30 UD 1

NS: North Star
C: Cabinet Models
(T: Two-Tank Models)
30: Capacity in Kilograins
UD: Ultra Demand
(ED: Electronic Demand)
1: High Flow Valve
(Blank: Standard Valve)

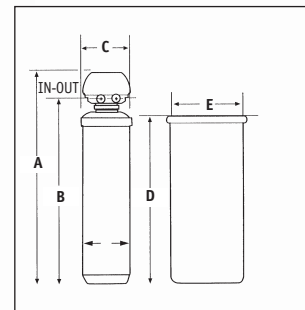
SPACE SAVER MODEL (NSC15ED)



CABINET MODEL



TWO-TANK MODEL

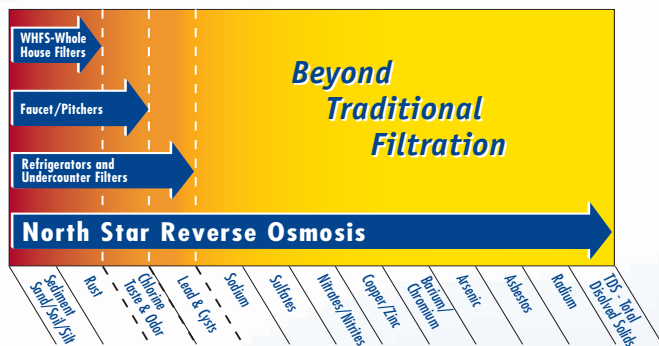


NORTH STAR DRINKING WATER SYSTEM

The Professionals' Choice



North Star Reverse Osmosis drinking water system
provides the **ultimate**
in **purified** drinking water...



Specifications

Model	NSRO42C4
Daily Production Rate	15 gallons
Storage Tank Size/Capacity	4/2.4 gallons
Flow Rate at Faucet	Up to 1.0 gpm
Pre/Post Carbon Filter Life	750 gal./6 months
Membrane Life	1 – 3 years

Warranty (See Owner's manual for specifics)

1 year on parts

90 days on membrane



Designer Faucet - Three Faucet Finishes

Ceramic disc design with adjustable flow rate.

Polished Chrome (*comes standard*)

Oil-Rubbed Bronze (*purchased separately*)

Brushed Nickel (*purchased separately*)

Water Quality Monitor

When the faucet is IN USE indicator lights show RO performance and when to change filters.



PRE/POST FILTERS O.K.



CHANGE PRE/POST FILTERS



CHANGE MEMBRANE

North Star Drinking Water Systems



Model	NSRO42C4	Typical Refrigerator and Undercounter Filters	Typical Faucet/Pitcher Filters	WHFS
Reduces:				
Sediment (Sand, Soil, Silt)	✓	✓	✓	✓
Rust	✓	✓	✓	✓
Chlorine (Taste & Odor)	✓	✓	✓	
Lead and Cysts	✓	✓		
Sodium	✓			
Sulfates	✓			
Nitrates/Nitrites	✓			
Copper/Zinc	✓			
Barium/Chromium	✓			
Arsenic	✓			
Asbestos	✓			
Radium	✓			
TDS (Total Dissolved Solids)	✓			