

SIERRA

NS-1N30

Performance Data Sheet

System Description

Four-stage reverse osmosis drinking water system

System Performance

Daily production rate	42.8 L/d (11.3 gpd)
Efficiency rating ¹	8.8%
Recovery rating ²	18%

Feed Water Requirements

Feed water ³	Potable water
Feed pressure	275 kPa, (40psi) Minimum 552kPa, (80psi) Maximum
Feed temperature	1° C, (33° F) Minimum 38° C, (100° F) Maximum
Total Dissolved Solids	2,000 mg/L Maximum
Chlorine	1.0 mg/L Maximum



¹ Efficiency rating means the percentage of the influent water to the system that is available to the user as reverse osmosis treated water under operating conditions that approximate typical daily usage.

² Recovery rating means the percentage of the influent water to the membrane portion of the system that is available to the user as reverse osmosis treated water when the system is operated without a storage tank or when the storage tank is bypassed.

³ Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on disinfected water that may contain filterable cysts. The feed water must also be free of potential membrane foulants such as Iron, Hydrogen Sulfide and Manganese.

Replacement Schedule

The Nimbus Sierra system must be serviced on a regular basis to maintain efficiency and to safeguard water quality. Each system is equipped with a pre-filter, a membrane, and a post-filter. These cartridges work together to remove potential contaminants from your tap water and must be replaced at regular intervals. The chart below gives a general placement timetable and part numbers. For more accurate membrane filter replacement intervals, the system should be tested for TDS by an authorized Nimbus dealer. For dealer information, contact Nimbus Water Systems 800-451-9343 or www.nimbuswater.com.

Pre-Filter (Green Cap) Replace every 6-9 months

Pre-Filter, Sediment/GAC Carbon 104381

Pre-Filter, Sediment only 104380

Post-Filter (Blue Cap) Replace every 6-12 months

Post Filter, GAC 104382

Membrane (White Cap) Replace every 6-12 months

Membrane 104583



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System Tested and Certified by NSF International against NSF/ANSI Standard 58 for the reduction of the contaminants listed below. The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system, as specified in NSF/ANSI 58.

This system has been tested for the treatment of water containing pentavalent arsenic (also known as As(V), As(+5), or arsenate) at concentrations of 0.30 mg/L or less. This system reduces pentavalent arsenic, but may not remove other forms of arsenic. This system is to be used on water supplies containing a detectable free chlorine residual at the system inlet or on water supplies that have been demonstrated to contain only pentavalent arsenic. Treatment with chloramine (combined chlorine) is not sufficient to ensure complete conversion of trivalent arsenic to pentavalent arsenic. Please see the Arsenic Facts section of the Performance Data sheet for further information.

Testing was performed under standard laboratory conditions, actual performance may vary.

Substance	Influent Challenge Concentration (mg/L)	Average Percent Reduction	Max Permissible Product Water Concentration (mg/L)
Arsenic (pentavalent)	0.30±10%	98.2	0.025
Barium	10.0±10%	>99.9	2.0
Cadmium	0.03±10%	94.8	0.005
Chromium (hexavalent)	0.3±10%	87.5	0.1
Chromium (trivalent)	0.3±10%	96.8	0.1
Copper	3.0±10%	99.2	1.3
Fluoride	8.0±10%	96.7	1.5
Lead	0.15±10%	98.6	0.010
Selenium	0.10±10%	97.6	0.05
Radium 226/228	25 pCi/L ±10%	80.0	5 pCi/L
Total dissolved solids	750±10%	96.4	187
Turbidity	11±10% NTU	99.1	0.5
Cysts	80000 3-4µ/mL	99.99	7 #/mL



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Arsenic Fact Sheet

Arsenic (abbreviated AS) is a naturally occurring contaminate found in many ground waters. Arsenic is water that has no color, taste or odor. It must be measured by a lab test. Public water utilities must have their water tested for arsenic. You can get the results from your own water utility. If you have your own well, you can have the water tested. The local health department or the state environmental health agency can provide a list of certified labs. The cost is typically \$15 to \$30. Information about arsenic in water can be found on the internet at the US Environmental Protection Agency website: www.epa.gov/safewater/arsenic.html.

There are two forms of arsenic: pentavalent arsenic (also called As(V), As(+5), and arsenate) and trivalent arsenic (also called As(III), As(+3), and arsenite). In well water, arsenic may be pentavalent, trivalent, or a combination of both. Special sampling procedures are needed for a lab to determine what type and how much of each type of arsenic is in the water. Check with the labs in your area to see if they can provide this type of service.

Reverse Osmosis (RO) water treatment systems do not remove trivalent arsenic from water very well. RO systems are very effective at removing pentavalent arsenic. A free chlorine residual will rapidly convert trivalent arsenic to pentavalent arsenic. Other water treatment chemicals such as ozone and potassium permanganate will also change trivalent arsenic to pentavalent arsenic. A combined chlorine residual (also called chloramine) may not convert all the trivalent arsenic. If you get your water from a public water utility, contact the utility to find out if free chlorine or combined chlorine is used in the water system.

The Nimbus Sierra system is designed to remove pentavalent arsenic. It will not convert trivalent arsenic to pentavalent arsenic. The system was tested in a lab. Under those conditions, the system reduced 0.30 mg/L (ppm) pentavalent arsenic to 0.010 mg/L (ppm) (the USEPA standard for drinking water) or less. The performance of the system may be different at your installation. Have the treated water tested for arsenic to check if the system is working properly.

The RO component of the Nimbus Sierra system must be replaced yearly to ensure the system will continue to remove pentavalent arsenic. The component identification and location where you can purchase this component are listed in this installation manual.



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Sierra Limited Warranty

The Sierra Limited Warranty extends to the original purchaser of the system. This warranty covers all parts and factory labor needed to repair any Manufacturer-supplied item that proves to be defective in material, workmanship or factory preparation. The above-mentioned warranty applies for the first full calendar year from date of purchase. These defective items are subject to the following exclusions: membranes, filters, O-rings, and all other parts or components that require regular replacement as a result of ordinary usage.

Disclaimers This Warranty applies only if the system is installed and used in compliance with the instructions enclosed with the system.

The Warranty does not cover any non-standard Sierra parts. This Warranty does not cover the costs of repairs or adjustments to the unit that may be needed because of the use of improper parts, equipment or materials. This Warranty does not cover repairs required due to use of non-standard Sierra parts, unauthorized alterations of the unit, or failure of a unit caused by such alterations or by unauthorized repairs.

The Warranty does not cover malfunctions of the unit due to tampering, misuse, alteration, lack of regular maintenance, misapplication, fouling due to hydrogen sulfide or iron, scaling from excessive hardness, or excessive membrane hydrolysis due to chlorine levels in excess of 1.0 mg/L. In addition, damage to the unit due to fire, accident, negligence, act of God, or events beyond the control of the Manufacturer are not covered by this warranty.

Incidental and Consequential Damages The Manufacturer does not assume responsibility for payment of incidental and consequential damages as a result of the failure of this unit to comply with express or implied warranties, such as lost time, inconvenience, damage to personal property, loss of revenue, commercial losses, postage, travel, telephone expenditures, or other losses of this nature. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this exclusion may not apply to you.

Owners Warranty Responsibilities Under the provisions of the Warranty, the owner is expected to schedule maintenance, as described in this Manual. Neglect, improper maintenance, abuse, or unapproved modifications may invalidate the Warranty. Should your unit develop a defect or otherwise fail to perform in accordance with this warranty, you should contact the dealer from whom the product was originally purchased.

Implied Warranties The implied at-law warranties of merchantability and fitness for a particular purpose shall terminate on the date one year after the date of purchase. Note: some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

Other Rights This Warranty gives you specific legal rights and you may also have other rights which vary from state to state.



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