

## NANO CHLORAMINE REDOX



**OPUS Healthy Water  
Systems**

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NANO Chloramine Redox is a point-of-use drinking water system that produces great tasting water free of chlorine, chloramines, lead, mercury, heavy metals, and contaminants, while maintaining pH (alkalinity) and dissolved minerals. The system features a horizontally mounted inline 5 micron carbon block dirt/rust/sediment chlorine, taste and odor filter; bone char fluoride filtration; 3 pounds of KDF media combined with .6 pounds of granulated activated carbon; a 1 micron catalytic carbon block filtration that removes a wide range of contaminants including chlorine and chloramines; and a final .01 micron nanofiltration filter, to remove pathogens (bacteria/viruses), glyphosate, and over 85% of tested pharmaceutical drugs.

The NANO Chloramine Redox system uses five advanced filtration components to provide seven filtration stages, using three 10" vertical filters and two horizontally mounted inline filters (the Stage 1: 5 micron carbon block sediment, and the Stage 7: Nanofiltration filter).

### **Included Components:**

1. Triple filter wall mount housing (for under sink, or basement installations)
2. Inline horizontally mounted 5 micron carbon block (Water Input - Stage 1)
3. 10" Bone Char filter for the removal of fluoride (Stage 2)
4. 10" 3 lb KDF media/.6 lb granulated activated carbon (GAC) filter (Stage 3 &4)
5. 10" 1 micron catalytic carbon chloramine filter that removes bad tastes and chloramines, chlorine, and sediment to 1 micron (Stage 5 & 6)
6. 0.01 Micron Nanofiltration, removes pathogens & pharma drugs (Stage 7)
7. Quick connects for all ¼" tubing connections, including on the brushed nickel disk designer faucet.
8. Two 5 foot lengths of LLDPE ¼" BPA free tubing – one blue, and one red. Red is to connect to the cold water source and to the John Guest ball valve (shut-off valve) installed in the input of the 5 micron horizontally mounted inline sediment filter. The blue is connected to the output of the system and to the supplied John Guest quick connect screwed to the bottom of the supplied faucet.
9. John Guest ball valve shut-off valve, to make it easy to shut off water to the system for initial filter flushing and future filter changes – connected to the input of the horizontally mounted 5 micron carbon block sediment filter.
10. Filter wrench to allow easy removal of filter containers for filter changes.
11. Brushed nickel lead-free ceramic disk designer faucet, including a John Guest quick connect for connection to the blue tubing from the output of the system.
12. 5 Year Limited Warranty when filters are changed annually.

## NANO FILTRATION UNIT DESCRIPTION

**Stage 1 – Horizontally Mounted 5 Micron Carbon Block Sediment Filter.** This is an inline filter horizontally mounted on the top of the system with plastic clips. This filter should last six months to a year; however, depending on the quantity and sediment level of the water, it may require changing more often. Replace this filter if the water pressure drops to an unacceptable level, but at minimum it should be changed annually. While functioning primarily as a dirt and sediment filter, this filter also adsorbs chlorine and many contaminants, improving taste and odor.

- This filter is labeled **Stage 1 – 5 Micron Carbon Block Sediment Filter**.

**Stage 2 – Bone Char Fluoride Filter.** This is the left vertical stage of the unit, and is specifically designed to remove fluoride. Change this filter annually, even if usage is less than 5 gallons per day.

- This filter is labeled **Stage 2 – Bone Char Fluoride Filter** on the frame above the filter.

**Stage 3 & 4 - 3 lb KDF Media / .6 lb GAC.** This is the central vertical stage of the unit. This filter consists of two components (two stages), including the equivalent of 3 pounds of KDF media and .6 pounds granulated activated carbon (GAC). KDF media is a copper-zinc formulation that combines electrochemical and catalytic technology to remove chlorine, lead, mercury, iron, aluminum, arsenic, chromium, copper, manganese, nickel, chloroform, trichloroethane, lindane, and hydrogen sulfide from water. KDF media has a mild antibacterial, algacetic, and fungicidal effect, and may reduce the accumulation of lime scale. Change this filter annually, even if less than 5 gallons per day is purified.

- This filter is labeled **Stage 3 & 4 – KDF/GAC** on the frame above the filter.

**Stage 5 & 6 – Catalytic Carbon Chlorine and Chloramine Filter.** This is the right vertical stage of the unit, and consists of a 1 micron catalytic carbon filter. This filter is installed after the 15 minute flushing of the Stage 3 & 4 KDF/GAC filter. Change this filter annually even if less than 5 gallons per day is purified. This filter has multiple functions, including:

- Trapping particles as small as 1 micron from the KDF/GAC filter in stage 2 & 3.
- Removal of chlorine, chloramines, odors, and bad taste.
- This filter is labeled **Stage 5 & 6 – 1 Micron Catalytic Carbon Chloramine Filter** on the frame above the filter.

**Stage 7 – NanoFiltration Filter.** Filtering to .01 micron, this filter removes up to 99% of all pathogens, over 85% of tested pharma drugs, and glyphosate, but doesn't affect pH, or remove minerals.

**NOTE ABOUT QUICK CONNECTS:** *All OPUS water purification systems utilize quick connects for all tubing connections, including the connection to the John Guest ball valve (shutoff valve), faucet (there is a small gray piece with the quick connect supplied with the faucet) and input and output of the water filtration system. The quick connect allows easy insertion and removal of 1/4" tubing. To remove the tubing, you must hold in the "ring" or collar that is on the outside of the tubing (the ring or collar surrounds the tubing and is part of the quick connect). When you hold in the ring (sometimes you need a flathead screwdriver, but usually your finger will do) the tubing will easily slide out. If you try to pull out the tubing without holding in the ring, you can damage the quick connect fitting.*

## **INSTALLATION INSTRUCTIONS**

### **STEP 1 – INSTALL THE SUPPLIED FAUCET TO YOUR SINK**

If your sink or countertop doesn't have a hole for the supplied faucet, a 5/8" hole must be drilled to allow faucet installation. After the faucet has been installed, mount the unit under your sink or in a location that provides easy access for future filter changes.

- Note 1: Most plumbers cannot drill into quartz, granite, or similar solid countertops for faucet installation. If you have a solid countertop, check with your installer to ensure he or she can drill into your countertop without risking damage. It's usually best to contact the countertop supplier or manufacturer to drill the 5/8" hole required for faucet installation if you have a solid countertop.
- Note 2: Your installer must provide a connection to your cold water source. SharkBite U362 1/2" TEE for the cold water connection, and a Dahl straight shut-off ball valve (1/2" PEX 1/4" OD) are recommended.
- The 5 foot length of 1/4" red tubing is used to connect the cold water source to the water input, which is the blue and white John Guest shut-off valve that is inserted into the water input on the right side of the horizontally mounted 5 micron sediment filter.
- The 5 foot length of 1/4" blue tubing connects to the quick connect output on the right side of the unit and to the quick connect on the faucet.

### **STEP 2 – REMOVE FILTERS FROM MIDDLE AND RIGHT VERTICAL FILTER HOLDERS TO PREPARE FOR FLUSHING THE STAGE 2 FLUORIDE FILTER. MAKE SURE THE SHORT TUBE THAT CONNECTS THE RIGHT SIDE OF THE SYSTEM TO THE NANO FILTER IS NOT CONNECTED.**

1. Using the supplied filter wrench, turn the white filter housings to the left to open, and remove the filters from the center and right filter containers. The filters are labeled *Stage 3 & 4 – (KDF/GAC)* and *Stage 5 & 6 – 1 Micron Chloramine Filter* on the metal frame above the filter housings.

Labels and plastic should be removed from the filters when you receive the unit, but if there are labels or plastic wrap on the filters, remove them prior to re-installing as described below after flushing.

3. After removing the filter housings and removing the filters from the center and right filter containers, replace the empty filter containers onto the filtration system by turning to the right. To begin filter flushing, only the stage 2 fluoride filter should be installed.

### **STEP 3 – FLUSH THE STAGE 2 BONE CHAR FLUORIDE FILTER**

1. Make sure you have removed the KDF/GAC filter from the middle vertical filter housing and the 1 micron catalytic carbon chloramine filter from the right vertical filter housing, as described above. Only the bone char fluoride filter should be installed in the left filter container for initial flushing. The middle and right filter containers should have been labeled prior to shipping the unit to remind you to remove them prior to flushing.
2. The red 1/4" tubing should be connected to the cold water supply and to the John Guest ball valve which is connected to the horizontally mounted 1-micron sediment filter, or input stage.

3. The blue ¼" tubing is connected to the quick connect on the right side of the unit and to the faucet.
4. Open the John Guest ball valve to allow water to flow into the system, and turn the handle on the faucet downwards to allow water to pass through the filtration system and to the faucet.

Water will enter the horizontally mounted 1 micron sediment filter and flow through the bone char fluoride filter installed in the first vertical stage, through the two empty filter housings, and out of the faucet. Let water run through the system for 15 minutes.

**STEP 4 – FLUSH STAGE 3 & 4 KDF/GAC FILTER** (install in center filter container after flushing the fluoride filter)

1. After you have flushed the fluoride filter for 15 minutes, turn off the water to the system using the John Guest ball valve that is connected to the stage 1 horizontally mounted 1 micron sediment filter. Keep the faucet open to ensure there is no water flowing through the unit.
2. Remove the filter container from the center position using the supplied filter wrench. Dump out the water (it's easiest to do this with a bucket under or near the unit) and install the KDF/GAC Stage 3 & 4 Filter. This is a two-toned filter that is black on the top (the granulated activated carbon, or GAC) and gold (KDF Media) on the bottom. Remove any paper or plastic wrapping on the filter before installing any filter. Ensure that the rubber washer is facing up on all filters.
3. Turn on the water using the John Guest ball valve connected to the stage 1 sediment filter, and let the water run for 15 minutes to flush the activated carbon particles (fines) from the filter.

**STEP 5 – INSTALL THE 1 MICRON CHLORAMINE FILTER IN POSITION 3 (STAGE 5 & 6)**

1. After you have flushed the filters in the left and middle filter containers (Steps 3 & 4), turn off the water by closing the John Guest ball valve in the input of the horizontally mounted stage 1 sediment filter. Keep the faucet open to ensure no water is flowing through the unit.
2. Unscrew the Stage 5 & 6 right vertical filter container using the supplied filter wrench and install the 1 micron catalytic carbon block chloramine filter (Stage 5 & 6, green in color with green caps on each end). Make sure you remove any plastic wrapping (if present) before installation. You can install this filter in either direction, as there are rubber washers on both sides. Remember to install the other filters (KDF/GAC and Bone Char) with the rubber washers facing upwards.
3. Turn on the water to the system by opening the John Guest ball valve. Check for leaks. Run water through the system for 10 minutes.

Enjoy great tasting water, rich in minerals and free of chemicals, fluoride, chlorine, chloramines, lead, cysts, etc.

Note that for the first week or two, when the filters are new, it is common for dissolved oxygen to make the water appear cloudy. After a minute or so, the oxygen will evaporate; however, this will not affect the taste or quality of the water.

**Options for NANO Chloramine Redox:**

- Upgrade to 11" ceramic NSF certified designer water filtration faucet: \$120.00
- John Guest Union "T" to allow connection to a refrigerator or second tap (additional ¼" tubing will be required): \$5.00.
- Additional ¼" LLDPE tubing is \$1.00 per foot.

**NANO Chloramine Redox Description**

PLU	Model	Height	Width	Depth	Flow Rate	Description	Price
25845	NANO Chloramine Redox	17"	17"	6"	2 - 4 Litres Per Minute	5 filter, 7 stage water purification system, with 1 micron chloramine, chlorine, heavy metal, fluoride, major contaminant and chemical filtration. The final 0.01 micron nanofiltration filter filters viruses, bacteria, glyphosate and over 85% of tested pharmaceutical drugs.	\$599.99

**Filter Change Information**

PLU	Model	Stage	Location	Function	Change	Price
23788	OPUS Inline Sediment	1	Horizontal on Top of Unit	5 Micron Carbon Block Sediment Filtration	6 – 12 Months	40.00
17800	Bone Char Fluoride filter	2	Left Vertical	Fluoride Filtration Using Bone Char	1 Year	70.00
9395	3 lb. KDF /0.6 lb. GAC	3 & 4	Centre Vertical	Chlorine, Heavy Metals, THMs	1 Year	120.00
22447	1 Micron Catalytic Carbon	5 & 6	Right Vertical	Chlorine, Chloramines, Taste, Odor	1 Year	50.00
19761	0.01 Micron Nanofiltration	7	Top Horizontal	Bacteria, Viruses, Drugs, Glyphosate	1 Year	100.00
<b>25846</b>	<b>Annual Filter Change</b>	<b>All</b>	<b>All</b>	<b>Annual Kit with all 5 Filters</b>	<b>1 Year</b>	<b>\$380.00</b>

**Winnipeg Installation Options**

13824	Standard Drinking Water System, Under Counter Installation, with included faucet, within Winnipeg City Limits	150.00
17549	Minimum Additional Charge for Basement Install, one floor below kitchen sink, including up to 40 feet ¼" tubing	100.00
19760	Annual Filter Change, on-site (not including filters, priced above) including filter flushing as required.	90.00
11852	¼" John Guest Union "T" to allow two outputs from one input, to allow connection to a refrigerator, second tap, etc.	\$5.00
	¼" BPA Free Linear Low Density Polyethylene Tubing (LLDPE), per foot (White (9678), Blue (9679), or Red (9680))	\$1.00

ANNUAL COST OF OPERATION: \$380.00

MONTHLY COST OF OPERATION: \$31.67

WEEKLY COST OF OPERATION: \$7.31

DAILY COST OF OPERATION: \$1.04

COST PER GALLON: \$0.21

COST PER LITRE: 4.6 CENTS

5 YEAR LIMITED WARRANTY

**Designed, Engineered, and Tested by Nathan Zassman, President  
OPUS Water Purification Systems**