

PWS™ BEV-100 Series Features

ONE-PIECE, INJECTION MOLDED LEXAN® HOUSING

LARGE 2¼ GALLON RESERVOIR

18 GALLON-PER-DAY RO MEMBRANE

4-STAGE DEIONIZATION MODULE

PORTABLE – Easy to attach, no installation or plumbing required

SMALL FOOTPRINT – Tall, thin design optimizes countertop space

BUILT-IN FLUSH VALVE – Unique mechanism to periodically flush away debris that would otherwise shorten the life of the RO membrane

QUICK-CONNECT FAUCET ATTACHMENT – Heavy duty faucet coupler includes built-in purge/bypass button

Physical Specs

Dimensions	8¾" W x 10½" H x 19" L
Weight	15 lbs. (6.8 kg.)
Production	Up to 18 Gallons/Day

Every system is equipped with our unique combination prefilter to remove sediment and chlorine. All components are NSF Certified and/or FDA approved materials. Factory certified and tested at 100 PSI.

100 Series Replacement Components

MODULE	SCHEDULE	ORDER NO.
PWS™ Sediment & GAC Prefilter	Annually	PWS-BEV100-012
PWS™ 100 Series RO Membrane	2–4 years (as needed)	PWS-BEV-RO18
PWS™ Deionization Module	Annually	PWS-BEV-DI

Reverse Osmosis Membrane Specifications (All Systems)

Membrane Type	Spiral Wound Thin-Film Composite (TFC)
Maximum Operating Temperature	40–100° F (4–38° C)
Operating Pressure	40–100 psi (2.75–6.9 bar)
pH Range	3.0–11.0
TDS Level, Maximum	2000 ppm
Turbidity	<1.0 Net Turbidity (NTU)
Chlorine (Cl ₂)	0.00 mg/l *
Hardness (CaCO ₃)	<425 mg/l (<25 grains/gallon)
Iron (Fe)	<3 mg/l Ferrous Iron
Manganese (Mn)	<0.05 mg/l
Hydrogen Sulfide (H ₂ S)	0.00 mg/l

* All PWS™ BEV Series systems are equipped with carbon prefilters to eliminate chlorine.

Pure Water Systems, Inc.

5707 238th Place N.E.

Redmond, WA 98053 U.S.A.

866.444.9926

info@purewatersystems.com

www.purewatersystems.com

MEMBER



EPA EST. NO. 52531-FL-01

PWS™ BEV 300 Series Features

ANODIZED ALL ALUMINUM FRAME – Resists rust and corrosion providing a lifetime of support

TWIN UNIDIRECTIONAL CARBON PRE-FILTERS – Flow is lengthwise, not radial, for maximum contact time and organic adsorption

40 GALLON-PER-DAY RO MEMBRANE

4-STAGE DEIONIZATION MODULE

3.2 GALLON STORAGE TANK – High quality pressurized storage tank with an NSF approved purified water inlet of high quality stainless steel

BUILT-IN FLUSH VALVE – Unique mechanism to periodically flush away debris that would otherwise shorten the life of the RO membrane

REQUIRES NO ELECTRICITY

Physical Specs

Dimensions	Main assembly: DI Module: Storage Tank:	16" L x 16" H x 6" W 16¼" L x 3¼" Dia. 15" H x 11" Dia.
Weight		32 lbs.
Production		Up to 40 Gallons/Day

All components are NSF Certified and/or FDA approved materials. Factory certified and tested at 100 PSI.

300 Series Replacement Components

MODULE	SCHEDULE	ORDER NO.
PWS™ Sediment Prefilter	Annually (or as needed)	PWS-BEV300-SED
PWS™ GAC Prefilter (2)	Annually	PWS-BEV300-GAC
PWS™ 300 Series RO Membrane	2–4 years (as needed)	PWS-BEV-RO40
PWS™ Deionization Module	Annually	PWS-BEV-DI

Available Options

The following options are available directly from Pure Water Systems:

PRODUCT	ORDER NO.
Virtually Silent 24V Booster Pump Assembly Plumbs directly into system when feed supply is below normal and/or more water is desired.	PWS-BP-100, PWS-BP-300

Lifetime Warranty

Every PWS™ BEV Series pure water appliance comes with our exclusive limited lifetime warranty on parts (exclusive of module changes and abuse).

For More Information

*To learn more about our products or water related health issues including toxic contaminants listed in this flyer (MTBE, THM, TCE, etc.), contact your authorized provider listed below, or visit us on the word wide web.

Your provider:

Pure Water Systems



Introducing The PWS™ BEV Series

The Most Advanced Water Purification Systems Available

Production of drinking water meeting the rigorous Vincent (BEV) standards for purity and bio-compatibility is only achieved by integrating the proper technologies and highest quality materials. PWS™ BEV systems combine a carefully chosen grade of activated carbon with a custom rolled reverse osmosis membrane, followed by our unique four stage deionization

module engineered to complement the RO membrane. These technologies work together to produce pure, BEV quality water and completely eliminate all pollutants and contaminants such as salts, nitrates, heavy metals, chemicals, pesticides, and disease causing waterborne bacteria and virus. Our designs are proven to be the most efficient and technologically advanced systems in the world.



PWS™ BEV-100 SERIES



PWS™ BEV-300 SERIES

Granular Activated Carbon (GAC)

We have carefully selected a premium grade GAC for removal of organic contaminants including hydrocarbons, MTBE, and THMs.* Our choice of GAC also removes all chlorine and helps ensure the correct pH of the product water.

Reverse Osmosis (RO)

We use an exceptional custom rolled Reverse Osmosis membrane offering a minimal rejection of 97% of total dissolved solids.

Deionization (DI)

Our unique four stage deionization module contains a proprietary blend of anionic plus cationic resins to capture any impurities not removed by the RO process. This ensures total removal of heavy metals, nitrates, nitrites, and radionuclides.

PWS™ BEV Series systems provide continuous rejection of greater than 99% of all contaminants. Test our products against any other designs (even distillers). Experience the difference yourself.

Bio-compatible water for everybody.

Is my drinking water pure?

Probably not. In 1985, National Geographic reported, "Since 1950, we've disposed of six billion tons of toxic throwaways in or on the land, steadily increasing our potential exposure to chemicals (from contaminated tap water) that can cause cancer, birth defects, miscarriages, nerve disorders, blood disease, and damage to liver, kidneys or genes."

And, the situation hasn't improved. The National Institutes of Health recently estimated our polluted environment accounts for 50% of cancer risk. There are more than 3,800 chemicals in daily use, many of which make their way into our water. Less than half of these have been tested for toxic effects in humans and less than 10% have been tested for toxicity to children. Chances are high that you won't be aware of any of these chemicals in your next glass of water since practically all toxic contaminants are tasteless, odorless and invisible.

The only practical solution is to make your home drinking water safe at the point of use. The PWS™ BEV Series combines carbon adsorption with a patented reverse osmosis/deionization process. When carefully matched with the finest components, these technologies are capable of producing BEV quality water—the purest and most biologically compatible drinking water.

What is BEV water?

BEV is an acronym for Bio-Electronic Vincent, an instrument used to measure the three key values of bio-compatible water as defined by Professor Louis-Claude Vincent of France. Professor Vincent was the chief hydrologist in France during the first half of the last century, where he had the opportunity to gather statistics showing disease tendencies and mortality rates for all the major cities across Europe. He correlated this information to the quality of the water those same populations were consuming. From his pioneering research he determined the optimal values for drinking water based upon the parameters of pH, rH2, and resistivity.

PH is a measure of acidity or alkalinity, i.e. the hydrogen ion concentration. Assuming the rH2 and resistivity values are within accepted values, the pH of bio-compatible water can range from 4.0 to 6.9. This range is allowed because when water is extremely pure, the pH value is easily affected since there are no other dissolved substances to buffer the solution. Regrettably, many municipal systems add lime to raise the pH between 7.3 and 8.0 in order to protect pipes from corrosion. In fact, many of the toxic compounds found in drinking water come from the distribution system itself. For example, chlorine and fluoride are intentionally added. Others are acquired as water flows through aging and leaking underground pipes, picking up traces of any number of metals including copper, nickel, chromium, even lead.

RH2 (a value derived via the Nernst Equation and a linear function of pH) provides an indication of electron potential in the fluid being tested. The range of rH2 is 0-42. When the rH2 value is below 28, the solution is considered reduced—having a higher number of electron donors than acceptors. In a cellular environment, it is generally considered an optimum situation if there is a high number of available electrons. The best water for human consumption has an rH2 of 20 to 24. Unfortunately, the majority of chlorinated tap water has an rH2 value higher than 27.

Resistivity (the opposite of conductance) is used to measure the total amount of dissolved inorganic solids, or TDS. The resistivity value should be as high as possible, indicating an exceptionally low concentration of dissolved contaminants. The higher the resistivity value, the cleaner your water, and the better it is for you.

The Bio-Electronic Vincent (BEV) provides information never before available. It reveals not only if your water is pure, but also whether or not it meets bio-water standards. We constantly test water from our systems to ensure it meets the Vincent standards for purity and bio-compatibility.

Many people are hesitant to invest in a home water purification appliance. But over the long run, it really makes sense. Consider, for example, if you buy 7 bottles of water per week you are spending as much as \$500 in one year! Investing in a PWS™ BEV system will ensure you have the cleanest water in the world available right from your own kitchen sink.

There are really only a few accepted methods for treating tap water. These include carbon filtration (GAC), reverse osmosis, distillation, ceramics, or exposing the water to ultra-violet light or ozone. Deionization is another common but costly solution, often found in laboratories where purified water is essential for accurate experimentation.

Each of these methods has its strength and weaknesses. For example, activated carbon is a good choice for removing toxic organic chemicals and hydrocarbons such as THMs and TCE, but only if used properly. Almost all granular and carbon block filters pass tap water through rapidly which allows some chemicals to escape. Unfortunately, this method has limited or no capacity to remove toxic metals, dissolved salts, or nitrates.

Activated carbon is commonly found in department store variety jug type filters or those that attach directly to the faucet. The cartridges must be changed frequently to maintain any level of effectiveness. Activated carbon is also commonly used to treat many bottled waters. Unfortunately, this method only removes a fraction of impurities and mildly improves taste.

Conventional distillers are inconvenient, costly to operate, and a bother to clean. Furthermore, toxic chemicals like THMs and TCE can be distilled right along with the water, ending up in the final product.

Ordinary reverse osmosis systems are good at rejecting dissolved salts and heavy metals, but removal of toxic chemicals and chloramines is sometimes poor. Manufacturers of ordinary RO systems will warn not to use the system on non-potable water supplies meaning they have no confidence their systems will remove bacteria, cysts, and virus. Be advised, too, that unless RO units are manufactured to the absolute highest standards (very few are) performance declines rapidly.

Ultra-violet light is often added to many of these systems to ensure no bacteria like fecal coliform can survive in the product water. But who wants to drink the carcasses of dead bacteria and virus?

HOW DO OUR SYSTEMS COMPARE?

	PWS™ BEV Series	Ordinary RO System	Carbon (GAC)	Ceramic	Distillation	Ultra-Violet	Chlorination	Ozone	Water Softener
Fecal Coliform	A+	F ³	F	F	A+	A+	A+	A+	F
Cysts	A+	F ³	F	D-	A+	F	F	F	F
Virus	A+	F ³	F	F	A+	A+	A+	A+	F
Heavy Metals	A+	B+	F	F	A	F	F	F	F
Asbestos	A+	B	F	F	F	F	F	F	F
Arsenic	A+	B-	F	F	A	F	F	F	F
Fluoride	A+	B-	F	F	A	F	F	F	F
Nitrate	A+	C	F	F	A	F	F	F	F
Sodium	A+	B-	F	F	A	F	F	F	F
Chemical Solvents	A+	C	A-	F	B-	F	F	F	F
Pesticides	A+	C	A-	F	B-	F	F	F	F
Herbicides	A+	C	A-	F	B-	F	F	F	F
TDS	A+	B	F	F	A	F	F	F	F
Hardness	A+	B ¹	F	F	A	F	F	F	A+
Iron	A+	F	F	C	A	F	F	F	A-
Taste	A+	B	A	C	B	F	C	C	F
Odor	A+	B	B	C	A	F	C	C	B-
Color	A+	B	B	F	B	F	B	B	F
Sediment	A+	A+	B-	A	A+	F	F	F	F
Chlorinated Compounds	A+	B	B	F	B-	F	F	D-	F

A - Excellent D - Poor
 B - Good F - Not Recommended
 C - Fair

¹ PWS™ BEV Series—up to 25 grains/gallon without softener. Ordinary RO up to 10 grains/gallon without softener.
² PWS™ BEV Series up to 3ppm ferrous iron with patented flush.
³ Not recommended by most manufacturers.
 All PWS™ BEV Series systems include the patented Aquathin® RODI process.