



Disinfecting Water Coolers

Tips for Cleaning and Sanitizing Coolers for Home, Office and Industrial Applications

Cleaning and disinfecting bottled water coolers should be done on a periodic basis. Routine surface cleaning provides a clean, attractive venue for dispensing water. Coolers can become dirty on the outside for various reasons, because of the environment and daily use. Office or home environments are not as bad as commercial or industrial, but all of them still require maintenance. The reservoirs are constantly wet, and these areas are subject to bio-slime formations and growth because of the wetted surface. The slime might not contain pathogenic or disease-causing bacteria, but it can produce offensive and undesired tastes. A bottled water supplier or distributor should keep maintenance records to be sure the coolers are routinely cleaned and sanitized. The Food and Drug Administration and International Bottled Water Association

Figure 1. Dirty coolers are not effective sales tools. Some environments require more maintenance and cleaning. Clean coolers sell more water.

have strict compliance standards because bottled water is considered a food product, which is ingested by humans and animals.

Clean Coolers Reflect an Image and Increase Sales

A little tender loving care can help increase business. Would you drink out of a filthy or dirty cooler? If the outside is dirty, what is it like on the inside? Dirt has no boundaries and after cleaning a few dozen coolers you would soon understand how the dirt migrates to the reservoirs and bacteria begins to proliferate. This bacteria causes bio-films and can alter the taste of water and compromise the cleanliness of the cooler. Keep the outside clean with routine cleaning on delivery routes whenever possible. Route drivers need to be trained on proper preventative maintenance and wipe down all the coolers on route days. Your company is always on display every time someone gets a drink of water.

Read the Manual or Try These Suggestions

Each cooler is different, so you might want to check with the manufacturer on their specific, recommended cleaning procedures and products. Here are a few examples and methods of disinfection, but always adhere to local regulations or manufacturer's recommendations. Use good judgment and common sense in choosing cleaners and disinfectants. Once a bio-slime starts to form, many times it takes a brush or cloth to break the bonds and destroy the gelatinous sacks.

Disassemble the unit; refer to owner's manual if in doubt. Most coolers are

pretty basic and easy to take apart and service. Always make sure the unit is unplugged to avoid any electrical shock or possible electrocution. If the unit has a heater for hot water, make sure water is in the system before plugging in the unit. The heating element sometimes can be damaged if not covered with water when in use.

Non-abrasive cleaners and disinfectants can be used on the outside of the cabinet. A scrub brush can be used to help clean crevices. Be sure not to scratch the cabinet or surfaces, which could leave unsightly blemishes or areas to attract dirt and grime. The reservoir should be checked to see if it is slimy. Care should be taken not to scratch the reservoir, but the bio-slime needs to be scrubbed off using a hot, soapy water solution. A chlorine solution of at least 50 parts per million (ppm) or greater also should be used to wipe the inside of the tank and clean it thoroughly. Ozonated water, that has an ORP level of 650 mV or greater also could be used for sanitizing the reservoir. Long-term exposure to these oxidizers may crack or deteriorate the O-rings. Care should be taken because leaks may occur if these rings do not seal properly when reassembled and returned to service. The spouts come apart and can be cleaned, scrubbed and disinfected. All surfaces that come into contact with water need to be sanitized. Again, only soak these parts for a short time in chlorine or ozonated water to make sure the seals are not ruined. A shop vacuum will work nicely to remove lint, hair and dirt inside the base of the unit. Wipe down the compressor and other parts to remove dust and dirt. The base of the

Tips for Disinfection

- To prepare a bleach solution for disinfection, add one-tablespoon (15 ml) household bleach (5.25 percent) to one gallon of water (3.8 L). Test strips should be used if the source water has iron, manganese or possible bacterial contamination to be sure solution is potent enough to sanitize.
- Always use protective eye, skin and clothing equipment when working with chlorine.
- Do not use cleaners that contain chemicals that will harm the plastic by cracking or discoloring the cabinet. Be sure to check labels on cleaners so that the cooler is not ruined.

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Figure 2. The top of the cooler needs to be wiped down, particularly in factory or industrial environments. These coolers need to be changed more often and serviced on a regular basis.



Figure 3. Disassemble to clean and disinfect properly. Be sure cooler is not connected to a power source when servicing. Clean base and compressor area.

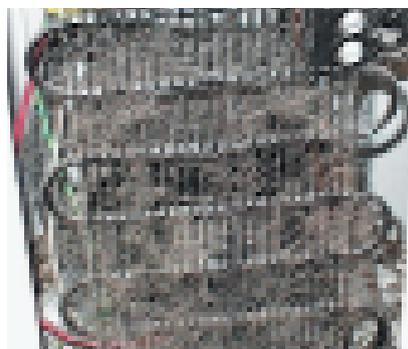


Figure 4. Clean dirt, lint and hair by using a shop vacuum. These areas also can be cleaned with a hose, but care should be taken not to get electrical components wet. An air compressor can help dry out components. Be sure not to connect damp or wet coolers to power supplies.



Figure 5. Clean reservoir thoroughly disinfected using bleach formulation.

unit also can be washed down and then blown out with compressed air to help the drying. Be careful with electrical components and do not get them too wet. Make sure the components are dry before plugging the cooler back into a power source.

Getting It Back Together

Reassemble the unit and get ready to do a final sanitizing step. Use surgical gloves to help keep hands from coming into contact with the reservoir or the spouts. It is always recommended to use safety goggles and gloves when working around bleach, acids or other oxidants. Care should be taken to avoid any prolonged exposure to vapors or fumes. Be sure your work area has good ventilation or that proper breathing equipment is used.

After the cooler is assembled, pour a solution of hydrogen peroxide or chlorine into the reservoir and let the solution stand for at least 10 minutes to allow enough contact time to kill any bacteria. The proper cleaning of the cooler will reduce bacterial growth and slow bio-slime build up and formation. It is recommended to clean a cooler with every bottle change or every six weeks. This may seem like a lot, but preventing sickness is very important to your business and customers.

Preventative Maintenance

Many times companies keep a constant rotation of cleaned coolers and always wipe down coolers when deliveries are made to each business. Residences are harder to maintain because many times homeowners are not available and bottled water is merely dropped off and only exchanged for empties. Scheduling maintenance or cleaning can create inconveniences for the customer and delivery driver, but preventative maintenance is necessary and recom-

mended. Another cost- and time-saving method is to carry presanitized faucets and reservoirs. Switching out these parts helps control bacteria from building up on the surfaces. There also are some different products available for doing onsite cleaning or larger systems that are designed to disinfect quantities of coolers. Several companies offer products for the large and/or small bottled water operations.

Keep coolers clean and have route drivers wipe down coolers whenever possible. Rented coolers need to be changed or cleaned on a regular basis. Remember, clean coolers invite a more pleasing water drinking venue and

create more sales. Customers that have purchased coolers can be another source of revenue, by offering to disinfect them for a service fee. Create a newsletter to inform customers on how to clean their coolers. This gets your name in front of the consumer and adds value to your service. You could add the newsletter to your monthly invoices and keep your customers up to date with new products, prices or services.

Acquire information from manufacturers on proper cleaning or obtain the study guide, *Guidelines for Disinfection and Sanitation*, available from the Water Quality Association. This is a very comprehensive guide for proper disinfection. Deciding on how to keep coolers clean should not be a matter of whether or not your operation incorporates this service, but which method is implemented. **WQP**

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