VINOTEMP WINE REFRIGERATOR BUYING GUIDE

What is a wine refrigerator?

A wine refrigerator can be the perfect home for your collection. It is an appliance that cools at warmer temperatures than a beverage or food refrigerator. Other names for this specific appliance are wine cooler, wine chiller, or wine vault. Wine Coolers cool reds, whites, champagnes, and other bubbly wines.

Below you will find answers to some frequently asked questions about storing wine and why a wine refrigerator may be the perfect storage solution for you.



Aging Wine

Only about 1% of wine being sold on the modern market is meant to be cellared. One way to gauge whether or not your wine falls into the elite 1% is its price; if you paid \$30 or less, your wine was made to be enjoyed in the near future (within a few months or up to 3 years). White wine generally needs less time to age, while red wine may require both short or long term storage. Both types of wine require proper cellaring conditions. Do not fret, if you are not ready to uncork your bottle today, storing it properly in a wine refrigerator will preserve it.

Wine Storage Basics

Here are some factors to consider when selecting a wine storage solution.

- Cooler temperatures are key, but not too cool. Storing wine anywhere with a temperature above 70°F will age wine rapidly and if the temperature rises higher, you may potentially cook your wine, causing it to lose its flavors and aromas. Conversely, if the temperature is too cold, wine may freeze, causing the liquid inside the bottle to form ice particles, pushing out the cork. A desirable temperature range is between 45°F and 65°F, the "perfect" temperature being 55°F.
- Steady temperature is important. Temperature fluctuations are a big "no-no" when it comes to wine storage. Swinging from a cold location to hot causes wine to expand and contract, which means the wine may push out the cork or contract and cause seepage from a dried-out cork. The cork needs to stay moist to maintain a seal.
- Light is wine's enemy. UV rays can prematurely age wine. This is why most vintners opt for colored glass bottles that protect their wine from light. A lightbulb will not age wine but could potentially fade the wine labels if they are exposed for extended periods of time. Since fluorescent bulbs emit a small amount of ultraviolet light, an incandescent bulb or LED light is a safer option.
- Humidity is important, but not mandatory. Dry air will dry out the cork of a wine bottle, causing air to sneak in and spoil the wine. If you are storing bottles for 10 years or more, then you do want to maintain an ideal humidity level of 70%. Safe range is between 50-80% humidity, which is

achievable in most climates by simply placing a pan of water inside the storage area. Conversely, if there is too much humidity and the cellar is damp, mold can begin to form.

- Store bottles on their side. Rest bottles on their side for the long term to ensure that the liquid inside the bottle keeps the cork moist. Storing bottles horizontally is also more space efficient. If a bottle is already open, you should store the bottle upright to prevent spillage as most wine stoppers are not perfectly air tight.
- The less vibration, the better. In theory, vibrations in the storage area will damage the wine by causing unwanted chemical reactions, thus aging the wine more quickly. Significant vibrations could kick up sediment in older wines, causing them to have a dirty or gritty flavor. Vibration is not as important if you're storing the wine short term, however, you still want to avoid moving the bottles too often.

What is the Difference Between a Standard Refrigerator vs. Wine Refrigerator?

You may be wondering whether or not you can store your wine in a standard refrigerator. The short answer is no. There are several reasons why you should avoid storing your wine in a standard refrigerator:

- In order to keep your food safe for consumption, a standard refrigerator is set between 32-40°F. While this will keep your juice and milk at the ideal temperature, it is far too cold for wine, which is best stored between 45-65°F.
- Your refrigerator is too busy --- if you have an active household, your refrigerator door is more than likely opening and closing constantly. All this activity may cause unwanted vibrations that are harmful to wine.
- Food has a distinctive odor that may penetrate the cork of your wine and cause it to have an unpleasant taste.
- Standard refrigerators are designed to cool rapidly and decrease humidity, whereas a wine refrigerator maintains humidity and lowers temperature gradually.
- One thing that standard refrigerators and wine refrigerators do have in common is they run on compressors. However, the compressors used in wine refrigerators have a unique design that absorbs any vibration caused by the compressor.

The chart below is a summary of wine coolers and how they differ from standard refrigerators.

COMPARING WINE COOLERS VS. STANDARD REFRIGERATORS:			
Wine Coolers	Refrigerators		
Primary purpose is to cool wine to its ideal temperature	Primary purpose is to store a variety of food		
Ideal humidity level for wine ranges between 30-40%.	Humidity level is 10% or lower. This can cause the cork to dry out and the wine to oxidize.		
Wine should be stored amongst other wines.	When stored with food, wine may take on the odors and taste of the food it is stored with.		
Available in multiple sizes and can fit into a variety of spaces both big and small	Usually available in a standard size meant for a kitchen only and not ideal for smaller spaces		
Large capacity wine coolers may hold up to 300 bottles	Capacity for wine depends on how much food is stored inside the refrigerator		
In general, wine refrigerators are less expensive than a standard refrigerator	More expensive than a standard wine refrigerator		
Designed to maintain wine's integrity with special racking and cooling system	Frequent activity (opening and closing door) will cause vibrations that are counterproductive to the aging of wine		
Encourage the slow, progressive, and natural aging of wine	Will cool wine below its ideal temperature, greatly slowing the maturation of wine		
Available with both thermoelectric and compressor systems	Typically, available with a compressor system only		

Benefits of Owning a Wine Refrigerator

Now that you know wine storage basics and the reasons why a standard refrigerator is not suitable for your wine collection, let's explore the benefits of owning a wine refrigerator:

- A wine refrigerator creates the ideal environment for wine. It stores wine at its ideal temperature, humidity, and stability.
- Wine coolers are budget friendly and generally cost less than a wine cellar, wine cabinet, and standard refrigerator.
- Wine refrigerators are designed with a simple system that costs less to maintain. The individual parts needed to repair a wine refrigerator's motor are much cheaper when compared to a standard refrigerator or wine cellar.
- With a diverse range of sizes/bottle capacities, both built-in and freestanding designs, wine refrigerators can easily fit into a variety of spaces.
- A wine refrigerator may store other beverages safely without spoiling them or the wine. Some of these drinks include soda water, plain water, lemonade, and other non-alcoholic beverages. Since the wine cooler maintains a temperature warmer than a standard refrigerator, you should not place perishables inside.

FAQ

Now let us explore some frequently asked questions about wine refrigerators.

What is the temperature range inside a wine cooler?

Between 41-65°F, which allows coolers to store wines that require both warm or cold temperatures.

What service does a wine cooler provide?

Wine coolers or refrigerators offer long term storage (55°F at 50% humidity), short term storage, or service (quickly cooling the wine).

What is the difference between long term and short term storage?

Some experts define long term wine storage as anything over 6 months and short term as anything less than 5 years. At Vinotemp, we define long term storage as anything over 1-3 years and short term as anything less than 3 years.

Which is right for my storage and entertaining needs; single-zone or dual-zone?

If you only collect one type of wine (red or white), then a single-zone cooler should suffice. If you have an equal love for both red and white wines, then a dual-zone cooler will benefit you since you can set one zone at a lower temperature than than the other. Additionally, dual-zone coolers present the option to set one zone to storage temperature and the other to serving temperature. If you anticipate you will be uncorking a bottle in the near future, you can simply move your wine from the storage to service zone for about 30 minutes to an hour.

Single-Zone

If a unit is listed as single zone, that means it has only one interior storage space with no partition. A single temperature will be maintained to cool all wines to the same level. The efficiency depends on whether it is a thermoelectric or compressor-based system.

PROS & CONS of a SINGLE ZONE WINE COOLER			
Pros	Cons		
Great for those building a wine collection with one type of wine	Best for only one type of wine. If you're trying to store both red and whites and the temperature of the cooler is set for whites, it will be too cold for the red wine.		
Excellent at maintaining one steady temperature	The ideal temperature for both wines can be set at 55°F. If the temperature is higher than 55°F, the problem may arise.		
Cheaper than multi-zone coolers	You may need to purchase more than one cooler if you are trying to store different varieties (one for red, one for white, etc.)		

Dual-Zone

If a unit is listed as dual zone, this means the cooler has two independent storage spaces. These refrigerators are designed with a partition in the middle which may be horizontal or vertical. Each zone can maintain a separate temperature, with one zone for white wine and the other for reds. If the refrigerator is designed with a compressor-based system, there are usually two separate mechanisms. With thermoelectric units, there is only one mechanism.

PROS & CONS of a DUAL ZONE WINE COOLER			
Pros	Cons		
Perfect for those who enjoy collecting a variety of wine	Second compartment becomes inefficient if you are storing only one variety of wine		
Separate compartments hold different wines safely at their ideal temperatures	All wines can be stored at their ideal temperatures in different compartments, but cellaring at a consistent 55°F can store both types of wine.		
Cheaper than other alternatives such as purchasing a second wine cellar	While cheaper than some alternatives, it is still expensive and has more energy consumption than the single-zone units.		

How does a wine refrigerator cool your wine?

Wine coolers use either thermoelectric or compressor technology. A compressor system uses gas to lower the temperature. Thermoelectric coolers use a module that controls fans. There is more information on thermoelectric vs. compressor cooling below.

What is the difference between thermoelectric and compressor-based wine refrigerators?

The chart below shows a comparison of the 2 different kinds of wine refrigerators. One kind is not necessarily better than the other. Your personal preference, budget, and the needs of your collection will be important factors that help you choose which kind of cooler is best for you.

The best metaphor would be to say if you are in your car with the air conditioner on, its cooling like a compressor. If you use the fan without the coolant, that is just the fan. Thermoelectric is quieter, and compressor pulls down the temperature more efficiently.

Defining Compressor Wine Coolers and Thermoelectric Wine Coolers

Compressor Wine Cooler

This type of wine cooler operates similar to a standard refrigerator. Air is compressed and then released to reduce the temperature of the interior. This process is known as the "vapor compression cycle". This process helps to reduce the temperature significantly. The compressor wine cooler contains the refrigeration chambers in which a compressor is used to compress refrigerant molecules electronically. This increases the temperature of the particles. The particles are then released suddenly which in turn decreases the temperature of the air. This cold air is blown through the interior of the cooler using a small fan. Heat is expelled at the back of the unit. This makes it very important to follow all clearance guidelines to ensure the unit functions properly. As soon as the internal temperature begins to rise, the compressor kicks back on and works to cool to the preset temperature. Once the desired temperature has been reached, the compressor will turn off to prevent freezing the contents of the refrigerator.

Placing Your Compressor Wine Cooler

You may place a compressor wine cooler inside your home or office. You must make sure you are following all clearance guidelines to ensure the unit is able to exhaust. You should also ensure that you are placing the unit in a space that can hold its weight when loaded with wine.

Efficiency

The mechanism inside the compressor wine refrigerator allows it to maintain a wide range of temperatures irrespective of the ambient temperature. Compressor technology maintains the temperature quickly by alternating between on and off as needed.

PROS & CONS of a COMPRESSOR WINE COOLER			
Pros	Cons		
Rapidly cools your wine	Compressors naturally emit more sound than a thermoelectric system		
No influence from the external environment	Small vibrations may reduce the shelf life of your wine slightly		
Wide temperature range	Uses more electricity and does use refrigerants		
Optimal temperature can be set for both red or white wines independently	Uses heavier components which decreases its mobility		
Able to cool a large number of wine bottles			

Thermoelectric Wine Coolers

Thermoelectric wine refrigerators use an electric current to create a temperature differential between the inside of the cooler and the external environment. The system utilizes a metal rod which is electrolyzed. The heated end faces the exterior in order to remove the heat from the interior of the wine cooler. The cooler end faces the interior. Similar to the compressor wine cooler, a small fan distributes the cool air throughout the inside. There is no alternating mechanism and no motors or compressors to create excess noise or vibrations. These units are generally quiet but there may be a small amount of noise coming from the fan. Due to the temperature differential, freezing does not happen. The equipment will typically cool the inside of the cooler ten to twelve degrees colder than the ambient environment and will maintain this temperature automatically. The design was inspired by the Peltier Effect and is very efficient.

Placing Your Thermoelectric Wine Cooler

Because thermoelectric wine refrigerators are freestanding, you must follow the clearance guidelines and leave sufficient room on all four sides in order for the cooler to exhaust properly. If heat is not allowed to exhaust properly, the cooler will not operate efficiently. Moreover, due to the design of thermoelectric units, they should not be placed in a warm room.

Efficiency

Thermoelectric units are moderately efficient at cooling and dependent on the temperature of the external environment. In order to take advantage of the thermoelectric precise cooling ability, the cooler should be placed in a room with a mild temperature.

PROS & CONS of a THERMOELECTRIC WINE COOLER			
Pros	Cons		
Good alternative for the preservation of wine	Takes longer to cool the wine		
Does not consume a lot of electricity	Interior temperature dependent on the external environment		
Uses an environmentally friendly mechanism for cooling	Temperature will remain the same unless the external environment cools or warms		
Does not use heavy equipment, lighter than compressor coolers and easier to move	Smaller bottle capacity		
Works best in rooms with a cooler temperature			

Which technology is better for energy efficiency?

The energy department (DOE) will soon restrict the sale of thermoelectric for wine coolers for the reason that it takes more energy to pull the temperature down, while compressor units are changing to R600 gas which is a kind of propane gas. R600 is flammable but helps pull down the temperature more efficiently.

What size unit should I buy?

First, ask yourself the following questions:

- How much space do I have for the wine refrigerator?
- Will I be placing the unit under a counter, on top of a counter, or free-standing?
- How large is my current wine collection?
- How much wine do I plan to buy in the future?

We recommend that you select a wine refrigerator with the storage capacity for 20-55% more wine than what you have on hand. You'll have sufficient room for your collection to grow and have enough wine on hand to entertain.

- On average, most wine refrigerators on the market store between 20-30 bottles of wine
- For those who prefer to store only 1 bottle of wine, there are single bottle options available
- For enthusiastic wine collectors, larger capacity wine refrigerators store between 100 to 300 bottles

Size is also one of the main reasons wine refrigerators have an advantage over traditional wine cellar; with a variety of sizes, you're sure to find one that fits your space.

What is the difference between free-standing vs. built-in?

Free-standing. If a unit is specified as free-standing, this means that it should not be recessed into cabinetry. Its exhaust is located at the rear of the unit and in order to operate properly, it requires ample space to "breathe". You can learn more about the specific installation requirements of free-standing units by referring to the helpful guide linked below.

View the Free-standing Installation Guide

Built-in. If a unit is built-in, this means that the refrigerator can be recessed into cabinetry while still following specific clearance guidelines to ensure it exhausts properly. Guidelines on how to install a built-in unit are provided here while unique installation instructions specific to your wine refrigerator can be found in its manual.

View the Built-In Installation Guide

What are some common questions I should ask myself before I purchase?

- How many bottles do I purchase vs. drink each month? If you purchase and drink at a similar rate, then a wine cooler for short term storage (wine cooler/refrigerator) is perfect for you.
- Do you store white wine, red, or both?
- How long do you plan to store your wine?
- What is your budget?

Where can a wine refrigerator be installed?

They may be installed under a counter, free standing, or even portable. They are perfect for homes, hotels, restaurants, boats, RVs, offices, resorts, bars, wineries, etc

What do wine enthusiasts buy?

We have seen our units in high end restaurants, as well as celebrities and uber wealthy clients who have a Vinotemp wine cooler in their home.

What are some common areas to place a wine cooler inside the home?

The kitchen, living room, dining room, man cave, bar, basement, garage, outdoor patio or entertaining space, under the stairs, closet (with proper air circulation), the family room, or inside your personal wine cellar.

Are racks different in wine coolers?

Wine refrigerators will have varied options for shelving. Wine Appliances will have either metal or wood racking. This racking can have bottle supports to help the bottle from rolling around, or to be able to stack the bottles for maximum bulk storage.

What kind of wine coolers are available?

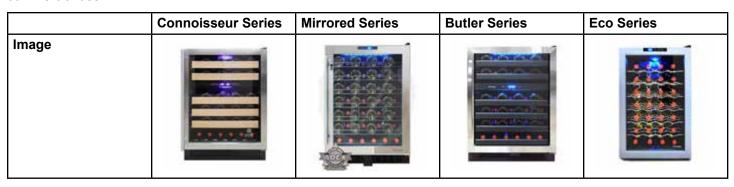
Wine Coolers now have many shapes, from a 6-bottle unit that hangs on the wall, to a trash compactor/dishwasher size appliance, to a small space built in 7 bottles single wide (7-inch-wide) unit for an empty spot and small spaces, to a 300-bottle bulk storage wine refrigerator as well as table top variations. This makes it super easy for those who do not drink a lot, or have empty nested ad moved to a condo to have access to wine/ wine cooler for guests and special occasions.

Which wine refrigerator series is right for me?

Vinotemp produces wine refrigerators under the Vinotemp brand name as well as the Element by Vinotemp brand name. The charts below show the different series offered.

Element by Vinotemp

Element by Vinotemp offers stylish, economical, space-saving storage and serving solutions for both residential and commercial use.



About	Element by Vinotemp's most distinctive line features sturdy wine racking with stainless lip, sleek curved handles, honeycomb front exhaust, seamless/stainless steel doors, and compressor cooling.	A unique series featuring mirrored trim doors, a variety of installations from free-standing to built-in, thermoelectric and compressor based cooling.	Element by Vinotemp's largest series comes in a wide variety of styles, black or stainless, compressor based cooling, free-standing or built-in.	An eco-conscious series that does not use CFCs or HCFCs. Available in a variety of colors. Variety of installations counter top or floor. Single-zone or dual-zone.
Price Point	Starting at \$1099	Starting at \$199	Starting at \$259	Starting at \$169
Storage Capacity Range	28-155 bottles	6-50+ bottles	15-165 bottles	2-48 bottles

Vinotemp

Maintaining a higher standard of aesthetics, wine refrigerators by Vinotemp are an effective collaboration between form and function.

	Designer Series	Private Reserve	Cava Series	II Romanzo Series
Image	JEC		Control of the contro	
About	Vinotemp's most exclusive series features high-end details that will elevate your wine collection. French key with lock, curved or pole handles, seamless/ stainless door frame, charcoal filter (for humidity and odor control), Low E glass (UV protection), smooth gliding racks or tempered glass shelves are all included in this collection.	Unique storage solutions ranging from smaller and larger collections. This series includes the back-lit units that allows you to display your wine using different lighting, and the new Panel-Ready units that allows you to attach panels to the door that match surrounding cabinetry.	Furniture style wine coolers that are perfect for the living or dining room. Utilizing thermoelectric technology, these wine coolers are ultraquiet and energy-efficient.	Open wine coolers that are perfect for tabletop or countertop use and for those who love to entertain. Single-zone or dual-zone.
Price Point	Starting at \$1499	Starting at \$699	Starting at \$1995	Starting at \$199
Storage Capacity Range	24-300 bottles	7-188 bottles	38-48 bottles	2-8 bottles

SET UP, MAINTENANCE, & TROUBLESHOOTING

SET UP AND INSTALLATION

Before you install a cooler, here is what you should consider:

- Your wine refrigerator should be placed in a flat and level location. Do not place it on an incline or decline or somewhere where it will lose footing (example: a staircase).
- Avoid heat and sunlight
- Avoid placing the unit in a location easily accessed by pets or children
- Avoid carpet. While spills and leaks do not happen very often, if they do, they may cause mold
 or odors. If you must install your refrigerator over carpet, place a plastic mat between the unit and
 the carpet.
- Keep the cooler away from water, dust, and other environmental factors that may deteriorate the unit.
- When your new cooler is delivered, allow the unit to sit for several hours unplugged and with the door open. This will allow any odors from fresh plastic and painted metal will not interfere with your wine.
- Allow the unit to rest upright and unplugged for a minimum of 24 hours before plugging it in.

While installing your new wine refrigerator:

- Review the instruction manual thoroughly to learn your unit's specifications. Failure to follow the instructions within the manual will greatly affect the functionality of your wine refrigerator.
- Follow the clearance guidelines carefully to ensure your unit can exhaust properly.
- Check the legs of the wine cooler and make sure it is stable.
- Before loading the cooler with wine, allow it to run for a few hours empty. If the unit is functioning properly, load it with wine.
- Pay close attention to the size of the refrigerator to ensure it will fit in the space allotted.

MAINTENANCE AND CLEANING

- You may need to replace the internal lights and wirings over time.
- Before you clean, turn off the unit to avoid electrical shock and remove the wine bottles.
- Use non-abrasive cleaners and cleaning agents.
- Clean out the water tray periodically.
- Wipe the inside and outside of the cooler with a damp cloth.
- If you must use a detergent, use a homemade mild and non-toxic solution.
- · Check the exhaust periodically and ensure it is free from dust and debris
- Handle the racks with care as you do not want to damage these.
- Clean up any spills inside the cooler right away
- After cleaning, allow the unit to "air out" before loading with wine.
- You should do a deep cleaning of your wine cooler at least once or twice a year.
- Never use a flammable cleaning agent to clean as this may cause a fire.

With proper care your wine refrigerator should last for many years.

TROUBLESHOOTING

All wine refrigerators are commercially manufactured. Even when following the most precise manufacturing procedures, it is possible for some manufacturing faults to occur.

IF THE COOLER DOES NOT TURN ON:

- Double check that the cooler is plugged in properly
- Ensure the switch is turned on
- Check the electrical socket
- Check the manual to ensure the wine cooler is installed properly

IF THE WINE REFRIGERATOR IS NOT COOLING PROPERLY:

- Ensure that your wine refrigerator is receiving the correct voltage
- Check that the temperature is set to the desired level.
- Check the exhaust and vents to ensure they are not blocked and proper clearance guidelines are followed
- Avoid opening the door of the cooler as much as possible as this will cause unwanted temperature fluctuations.

TOO NOISY:

- Noise can occur when the unit is not steady and even on the floor.
- Compressors can be louder and a trick is to pad the feet with carpet, to help muffle the vibration.
- Improper ventilation can raise the noise level and heat up the unit, so it's important to make sure there is enough venting, so that the compressor isn't working so hard.
- Air circulation around the one unit is also helpful to reduce noise so that the unit is not vibrating on something else.
- Very loud noise would be a trouble shooting problem.

ADDITIONAL ISSUES:

- Frost build up can be assisted by unplugging the unit and allowing the frost to evaporate. If it continues, the unit needs to be troubleshooted.
- You can turn the unit back on and see if by unplugging it the situation is fixed.

If none of this works, please contact customer service at <u>info@vinotemp.com</u>, 800.777.8466, or submit a support ticket through Vinotemp.com.

PLEASE NOTE:

- Be careful of damaged electric wires. If your cooler has a damaged electrical wire, have it replaced immediately.
- Pulling at wires or handling it harshly may cause damage to the unit.
- Never try to bypass the ground prong when plugging in the cooler. Doing so will increase your risk for electrical shock.
- Make sure there are no loose connections.
- Do not touch the cooler when your hands are wet.
- Carry out regular checks to ensure your wine refrigerator is functioning properly. If it is not and you are unable to troubleshoot using the instructions in the manual provided, unplug the unit.
- If your unit is not built in, be aware there is a possibility it may tip over. It is important to not pull all of the racks out at the same time.
- We recommend you anchor a free-standing unit, to avoid such a possibility.
- While a free standing and non built-in unit needs ventilation, this doesn't mean it can't be anchored.
- Servicing your unit should be something to consider periodically. Always check for dust build up, keep the exhaust areas clear and clean.
- Servicing your unit like a refrigerator is quite important to keep your unit functioning correctly, we do have Wi-Fi enabled devices available to advise if the temperature is off. Please visit www. vinotemp.com to find the Wi-Fi option
- Our appliances are rated by either ETL, UL or CSA, make sure that you see this type of seal before any purchase.
- We are here to protect your investment, whether a short term or long-term storage and proper temperature for red, whites and champagnes.
- Keep children and animals away from your wine or beverage cooler. You do not want to use an electrical cord that is frayed, it could cause issues like electric shock.
- Install a safety lock to keep kids and pets from opening the door. Sometimes your unit will include a lock.
- When you are disposing of your appliance, make sure to remove the door, so no animal or child is stuck inside a unit. Have the coolant/refrigerant removed and disposed properly by a certified technician, they will know how to dispose of the refrigerant in an environmental manner.
- Please be cautious with the packaging materials. Remove all plastic, staples and pins. Recycle them in your selected recycle bins.

CONCLUSION

Whether storing 6 bottles or 300, the only want to allow wine to achieve its full potential is to store it properly. Vinotemp and Element by Vinotemp offer a variety of wine refrigerators that take the guesswork out of wine storage.

Please contact us if you have any further questions. Our wine storage experts are happy to help!

1-800-777-VINO or info@vinotemp.com