

# WINE ENTHUSIAST<sup>®</sup>

## Wine Cellar Preparation Guide

When considering a budget for your wine cellar, remember that proper temperature and humidity is imperative for aging wine. Regardless of the climate you live in, wine needs a consistent temperature between 53 and 57 degrees, and a humidity level between 50%-70% to age properly. If you plan on aging wine or storing bottles for longer than a few months, we highly recommend adding climate control to your wine cellar.

While it's true the ideal location for a wine cellar is in the basement, a wine room can be located almost anywhere under the right conditions. Always choose a location away from vibrations and out of direct sunlight. Heat and light destroy wine, so the less light the better. Consider a location where power or mechanical failures are unlikely to occur.

A constant temperature in your wine room is key, as regular fluctuation may have a negative effect on your wine. Wine cellar cooling units are engineered to cool slower than standard HVAC systems, while maintaining a constant temperature and humidity level.

Wine Cellar cooling units are split into 3 categories: Through-The-Wall, Split and Fully Ducted. Whether your wine room is new construction, part of a renovation, a large room in the basement, a small closet upstairs, or a glass front display under the staircase, we have a cooling solution for you. Contact one of our wine storage professionals to help you choose the best cooling unit for your wine room. Our representatives will run a calculation to determine the size of the cooling unit needed as well as make a recommendation for the location of the unit.\*\* A cooling unit generates a significant amount of heat, so it's important to keep heat dissipated from the unit correctly. Most system issues are due to a lack of proper ventilation.

\*\*A certified HVAC technician must confirm the location of the cooling unit

## **Framing & Insulation**

Insulation R-value is a measure of the insulation's ability to resist heat flowing through. A higher insulation R-Value means lower unit runtime and operating costs. Closed cell foam is highly recommended because it acts as a great air and water vapor barrier. Fiber glass, grid foam, and Blown-In Insulation are adequate. We recommend 2X4 or 2X6 frames with an insulation R-Value of R-13 or greater for interior walls and R-19 or greater for exterior walls. The ceiling should be a minimum of R-19, but R-30 is recommended.

## **Vapor Barrier**

A vapor barrier helps maintain the desired temperature and humidity level by creating a separation between the environment outside your wine cellar and the environment inside your wine cellar, preventing water vapor from entering or escaping. A minimum of six mm plastic sheeting should be applied on the warm side of the cellar walls and ceiling. If it is impossible to reach the outside, the vapor barrier must be applied from within the cellar. The most common method is to wrap the entire interior, leaving the plastic loose in the stud cavity so the insulation can be placed between each stud. All walls and the ceiling must be wrapped in plastic for a complete vapor barrier.

## **Wall Covering**

Standard sheetrock is sufficient, however green board is highly recommended due to its moisture resistance. Tongue and groove paneling may be used to cover your walls but be sure to choose a rot resistant wood such as mahogany, redwood, cedar. Any holes for cooling units, light switches, and outlets must be sealed.

## **Flooring**

Flooring must be properly sealed and able to withstand high levels of humidity. Sealed concrete is the ideal option, but cork, hardwood, tile, and vinyl can be used. Do not use carpet! Concrete can be sealed with a sealant such as dry lock.

## **Doors and Glass**

Doors should be exterior grade and sealed to keep cool air from escaping. Weather stripping should be applied on all 4 sides of the door. Glass should be dual pane with an airtight seal. Wine Enthusiast offers the highest quality insulated glass walls and doors in the industry.

## **Lights**

Always use low voltage LED or fluorescent lights. Frequent light exposure may affect wine negatively, so keep lights turned off as much as possible. Any holes for ceiling lights must be sealed.