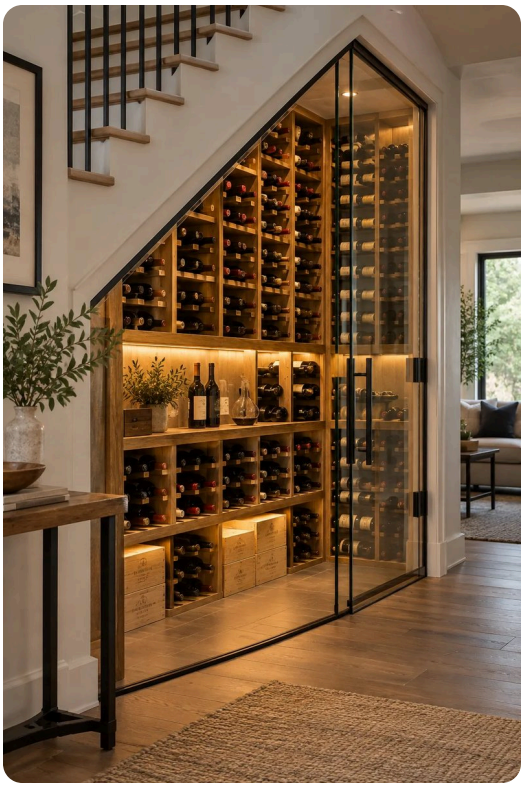
Under-Stair Wine Cellar Prep

Turn your empty space into a stunning, climate-controlled wine display.

Prep, seal, and outfit this tricky footprint to safely store your collection. This checklist ensures your space can support a perfectly chilled environment.



Essential Cellar Specs

6-mil
vapor barrier on the warm side

R-13 to R-19
fiberglass insulation based on framing depth

6 inches
minimum overlap for vapor barrier seams

1/2 inch
tempered glass for structural integrity

15 degrees
display angle to keep corks moist

55 °F
target temperature for aging wine gracefully

50-70 %
relative humidity to prevent dry corks

Use double-deep racking

Under-stair spaces lack width but offer depth. A 27-inch deep assembly stores two bottles per slot, doubling your capacity in the exact same footprint as a 13.5-inch standard rack.

Cellar Prep Checklist

- [ ] Pack every stud bay tightly with high-density insulation.
- [ ] Seal vapor barrier seams with moisture-resistant acoustic tape.
- [ ] Vent to adjacent room to dissipate exhausted heat.
- [ ] Apply an exterior door seal to block air leaks.
- [ ] Reinforce framing with double studs for heavy glass hinges.
- [ ] Choose moisture-resistant hardwoods like white oak or mahogany.
- [ ] Route electrical wiring behind drywall before finalizing moisture barrier.

Low-heat LED strip

1. **Measure the display shelves** Measure the exact underside of your display shelves to determine the required aluminum channel length.
2. **Mount the aluminum tracks** Securely mount the heat-sink tracks using countersunk wood screws to protect your wine from heat.
3. **Press the adhesive tape** Press the adhesive LED tape directly into the channel, keeping wiring accessible for future maintenance.
4. **Snap the diffuser cover** Snap the frosted polycarbonate diffuser cover into place to soften the glow and complete the look.

Cooling Unit Vent Sizing

Find your row: **Cellar cubic volume**

Cellar cubic volume	Your pick	Why
50 cubic feet	8x8 inch grille	100+ cu ft room, 3 ft clearance
100 cubic feet	10x10 inch grille	200+ cu ft room, 3 ft clearance
150 cubic feet	12x12 inch grille	300+ cu ft room, 4 ft clearance
200 cubic feet	14x14 inch grille	400+ cu ft room, 4 ft clearance

Pre-Construction Site Checks

- ○ Measure cubic footage to properly size your self-contained cooling unit.
- ○ Confirm framing depth allows for your chosen high-density insulation.
- ○ Check floor levelness so your custom wood racking sits flush.
- ○ Measure available depth so front bottles clear the glass door swing.
- ○ Check manufacturer specifications for your cooling unit's exact electrical circuit requirements.

Cellar Planning Notes

Enjoy building a stunning, perfectly chilled home for your favorite vintages!