

# Wine Guardian Sample Selections

**Assumptions:**

1. 8.0 foot ceilings thru-out
2. Poor construction assumes an overall insulation value of R7, average assumes R13 and good assumes R21
3. Ambient and condensing temp. is 85 deg.F
4. Room setpoint is 55 deg.F
5. All rooms have 25 feet of duct from unit to cellar
6. Room is square or rectangular (area = W x L )
7. All cellars are on concrete floors below grade
8. Bottle storage capacity = 18 bottles/sq. ft. of floor area assuming stacked 72" high, 12"deep and 36" isles and 85% utilization
9. **Residential** = 2 door opngs./day with 1 person and 1 watt/sq.ft. intermitten, 0 continuous lights, one 6 sq. ft. window, one door, one hot wall on short wall, one bottle/day turnover
10. **Restaurant** = 16 door opngs./day with 1 person and 2 watts/sq.ft. intermitten, 1 watt/sq.ft. continuous, 0.25 bottles/sq.ft. turnover, one short hot wall, one 12sq.ft. window, one door
11. **Retail/Storage** = 36 door opngs./day with 2 people and 3 watts/sq.ft. continuous lighting, 0.5 bottles/sq.ft. turnover, one short hot wall, 2 doors (one from unconditioned space), one 12 sq.ft. window
12. Minimum of four (4) air changes per hour for good circulation and distribution

**Wine Guardian Capacity Chart**

Model	Nominal Tons	Max. BTU/h	CFM w/ ducting	Max. Cu. Ft. @ 4 a/c/hr
025	1/4	3000	210	3150
050	1/2	5300	340	5100
088	1	7800	490	7350
200	2	15200	720	10800

Width ft.	Length ft.	Area sq. ft.	Volume cubic ft.	# bottles each	Residential			Restaurant			Retail/Storage		
					Poor btu/h	Average btu/h	Good btu/h	Poor btu/h	Average btu/h	Good btu/h	Poor btu/h	Average btu/h	Good btu/h
5	10	50	400	900	2727	2116	1820	3668	3057	2761	5611	5000	4704
10	10	100	800	1800	3434	2522	2079	4668	3755	3313	7042	6129	5686
10	15	150	1200	2700	4021	2857	2293	5559	4395	3831	8353	7189	6625
15	15	225	1800	4050	4842	3328	2594	6806	5292	4558	10257	8743	8009
15	20	300	2400	5400	5543	3730	2851	7948	6135	5256	12047	10234	9355
20	20	400	3200	7200	6479	4265	3193	9467	7255	6183	14429	12217	11145
20	25	500	4000	9000	7291	4733	3492	10867	8309	7068	16692	14133	12893
25	25	625	5000	11250	8339	5333	3876	12645	9640	8183	19548	16542	15085
25	30	750	6000	13500	9267	5866	4217*	14305	10904	9255	22288	18887	17239
30	30	900	7200	16200	10428	6532	4643*	16348	12452	10563	25622	21727	19838
30	35	1050	8400	18900	11469	7130*	5026*	18265	13925	11821	28837	24497	22393

**Notes:**

- 1 Selections in black would require multiple units to meet the cooling capacity.
- \* These selections determined by the minimum 4 air changes per hour criteria