



CONTROL THE ELEMENTS



CellarPro Cooling Systems 4200 Series



Owner's Manual



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Summary

CellarPro 4200 Series cooling units are designed for cellars from 500 to 1500 cu ft, as follows:

- **CellarPro 4200VSi** – rated for interior use
- **CellarPro 4200VSx** – rated for interior & exterior use

CellarPro's 4200 cooling units use two powerful, variable-speed centrifugal fans and offer three fan-speed settings from super-quiet to high-performance for maximum installation and application flexibility:

- **Low fan-speed setting** – CellarPro's 4200VS wine cooling unit is nearly seven decibels quieter and produces almost as much BTU as the nearest competitor.
- **Medium fan-speed setting** – CellarPro's 4200VS cooling unit is 8% more powerful and 2 decibels quieter than the nearest competitor
- **High fan-speed setting** – CellarPro's 4200VS provides 18% more BTU than the nearest competitor, handles extreme conditions from 40 to 115 degrees, and the condenser airflow can be ducted up to 100 equivalent feet (50 per vent)

Specifications

	<u>4200VSi</u>	<u>4200VSx</u>
Capacity:	1500 Cu Ft	1500 Cu Ft
Size (inches):	14.1w x 25.1d x 19.6h	14.5w x 27.6d x 19.7h
Weight (lbs):	115	123
Ship Weight (lbs):	150	160
Ship Dims (inches):	19w x 30d x 25h	19w x 30d x 25h
Power/Rating:	115V AC / 60 Hz; 11.8 Amps	115V AC / 60 Hz; 11.8 Amps
Warranty:	2 Years (Entire System) / 5 Years (Compressor)	2 Years (Entire System) / 5 Years (Compressor)



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Key Features

- 1500 Cu Ft Capacity
- Designed to operate in extreme temperature conditions (40 - 115°F)
- High-performance compressor
- Oversized Electrofin-coated evaporator coils (VSi & VSx) and condenser coils (VSx)
- Dual high-output centrifugal fans
- Advanced LED display and electronic temperature control
- Adjustable humidity control via electronic display
- Thermostat-modulated condensate evaporator with “On/Off” control
- Stainless steel drain pan and 1/2”I.D. drain line
- Dual power source (front and rear)
- Adjustable mounting brackets (eliminates the need for a support shelf)
- Removable condenser air filter (4200VSi – fiberglass and 4200VSx – Aluminum)
- 1/4" refrigeration service (Schraeder) valve & removable steel case
- Energy-Saver and Quick-Chill modes
- Multiple audible and visual alarms
- Compatible with a dedicated 15-Amp circuit
- ETL tested and certified (UL Standards)
- **4200VSx Exterior Package:** Weather Hood, Coated Condenser Coils, Double-Powdercoated Case, Reusable Aluminum Filter, and Exterior-Grade Power Cord



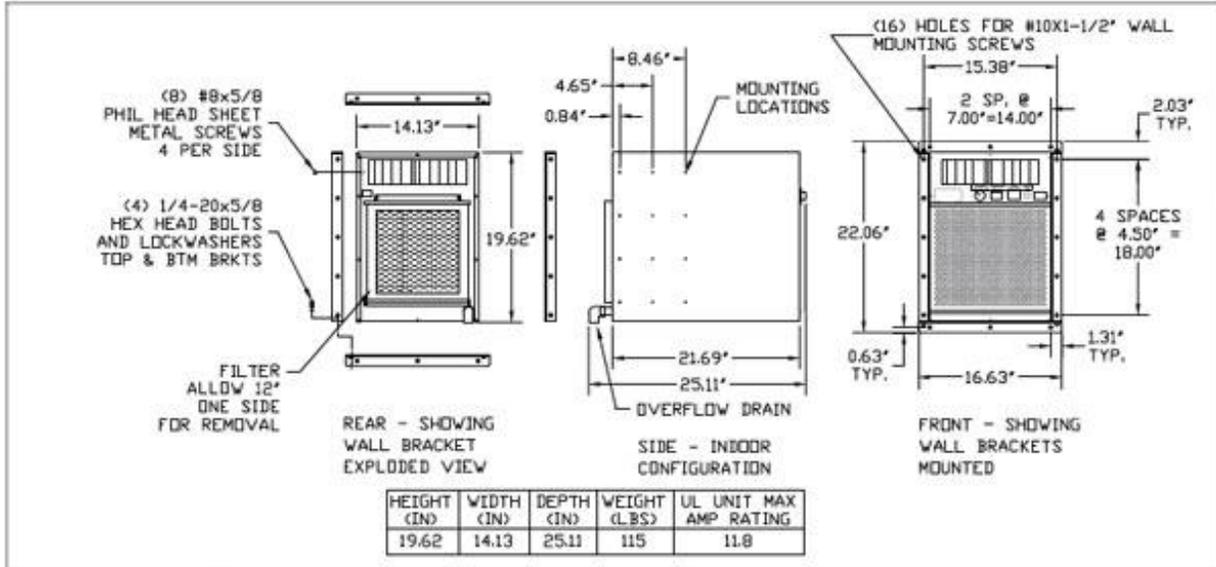


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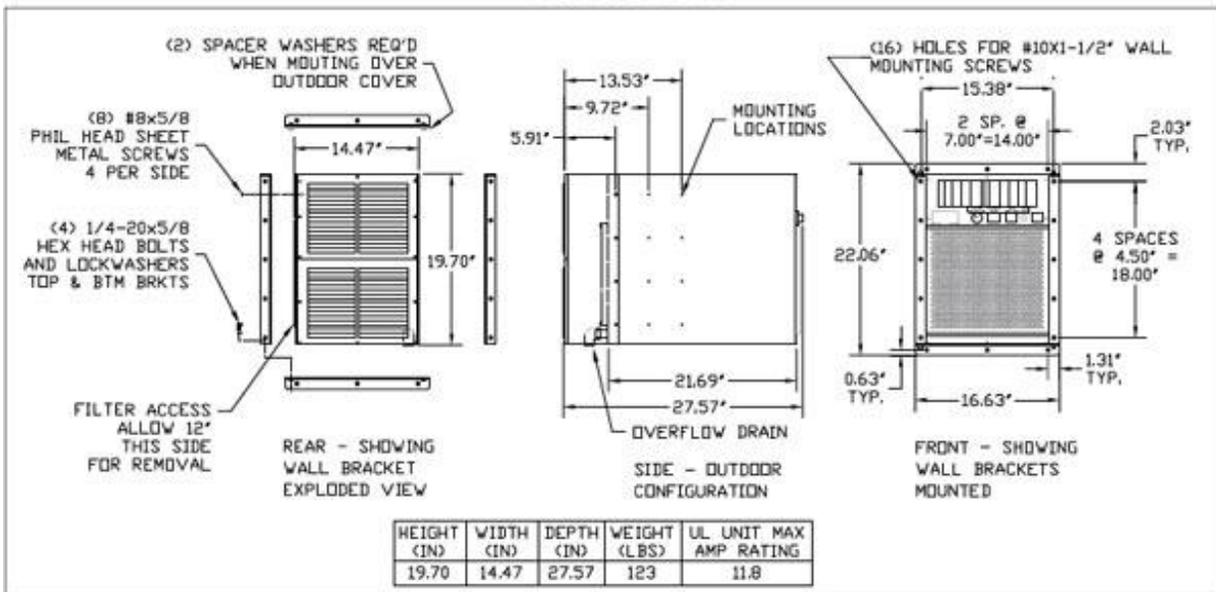
Cut Sheets

Table I

4200VSI CUT SHEET



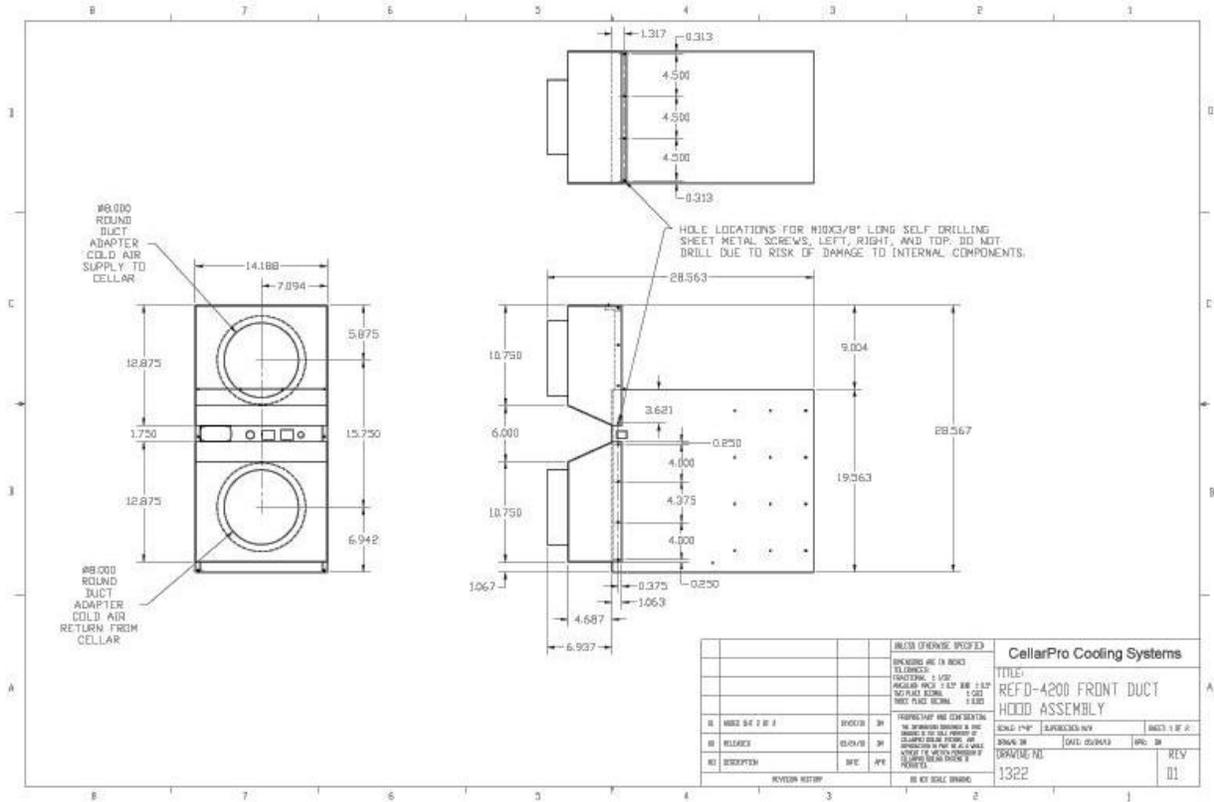
4200VSX CUT SHEET



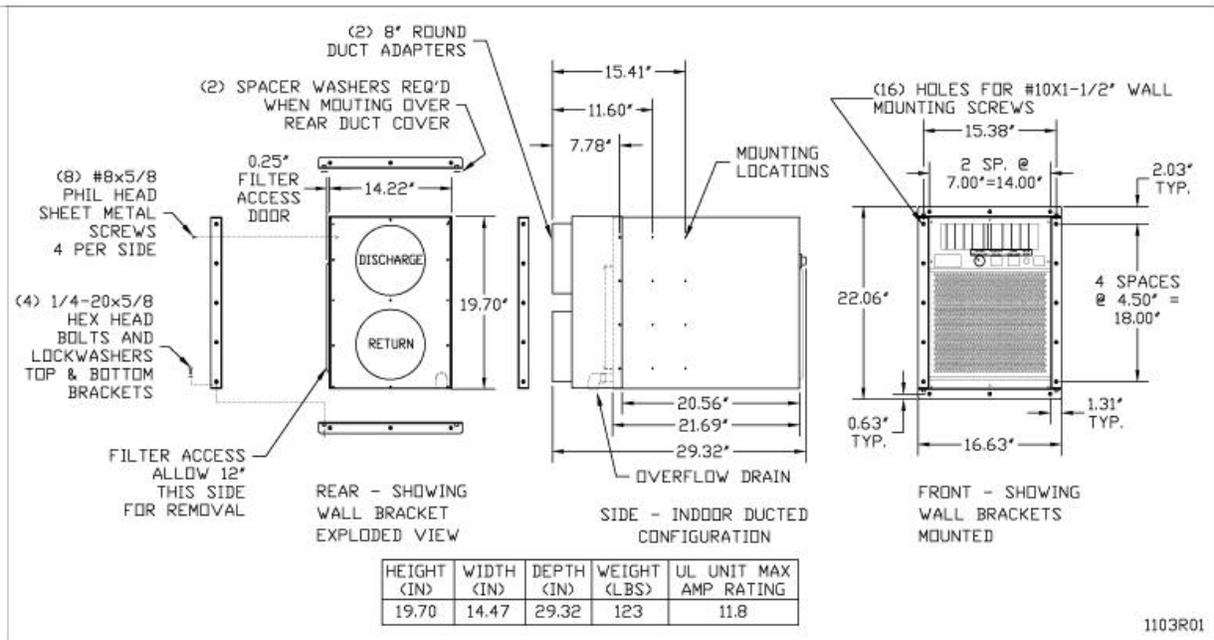


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CellarPro 4200 Front Duct Hood



CellarPro 4200 Rear Duct Hood





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4200VS Cooling Capacity (@ 60°F)

Table II

Low Fan Speed		BTUH: 3597 Decibels: 54		
Med Fan Speed		BTUH: 3969 Decibels: 59		
High Fan Speed		BTUH: 4267 Decibels: 67		
Cellar Insulation		R12	R19	R30
Cellar Size	Ambient Temperature	Thermal Load (BTUH)		
500 Cu Ft	70°F	1858	1723	1643
	75°F	1969	1791	1683
	80°F	2082	1859	1723
	85°F	2196	1927	1765
	90°F	2307	1995	1806
	95°F	2402	2064	1848
1000 Cu Ft	70°F	2988	2799	2686
	75°F	3147	2895	2744
	80°F	3304	2990	2800
	85°F	3463	3087	2858
	90°F	3622	3183	2916
	95°F	3780	3279	2974
1500 Cu Ft	70°F	4055	3824	3685
	75°F	4250	3942	3756
	80°F	X	4059	3827
	85°F	X	4176	3898
	90°F	X	4267	3969
	95°F	X	X	4040

Summary

The table is shaded to show how the 4200 cooling unit will work at 60°F using various fan speeds under various thermal loads. The thermal loads are derived from assumptions about the temperature inside the cellar, the size of the cellar; the R-value in the **six** cellar surfaces (ie walls, floor and ceiling) and the ambient temperature outside the cellar, as follows:

- The light-shaded numbers represent thermal loads that are within the capacity of the cooling unit at the **low** fan speed
- The medium-shaded numbers represent thermal loads that are within the capacity of the cooling unit at the **medium** fan speed
- The dark-shaded numbers represent thermal loads that are within the capacity of the cooling unit at the **high** fan speed
- "X" indicates conditions that are beyond the capacity of the 4200 Series cooling units

(1) The thermal loads above are calculated based on the R-Values shown for all walls, floor and ceiling. Lower R-Values in the cellar (eg from glass doors) will increase the thermal load on the wine cellar and will require the cooling unit to operate at higher fan speeds. Warmer climates require higher insulation to enable the cooling unit to operate at lower fan speeds. To be certain that the thermal load won't exceed the capacity of the cooling unit, email your wine cellar specifications to us and we'll be glad to assist you.

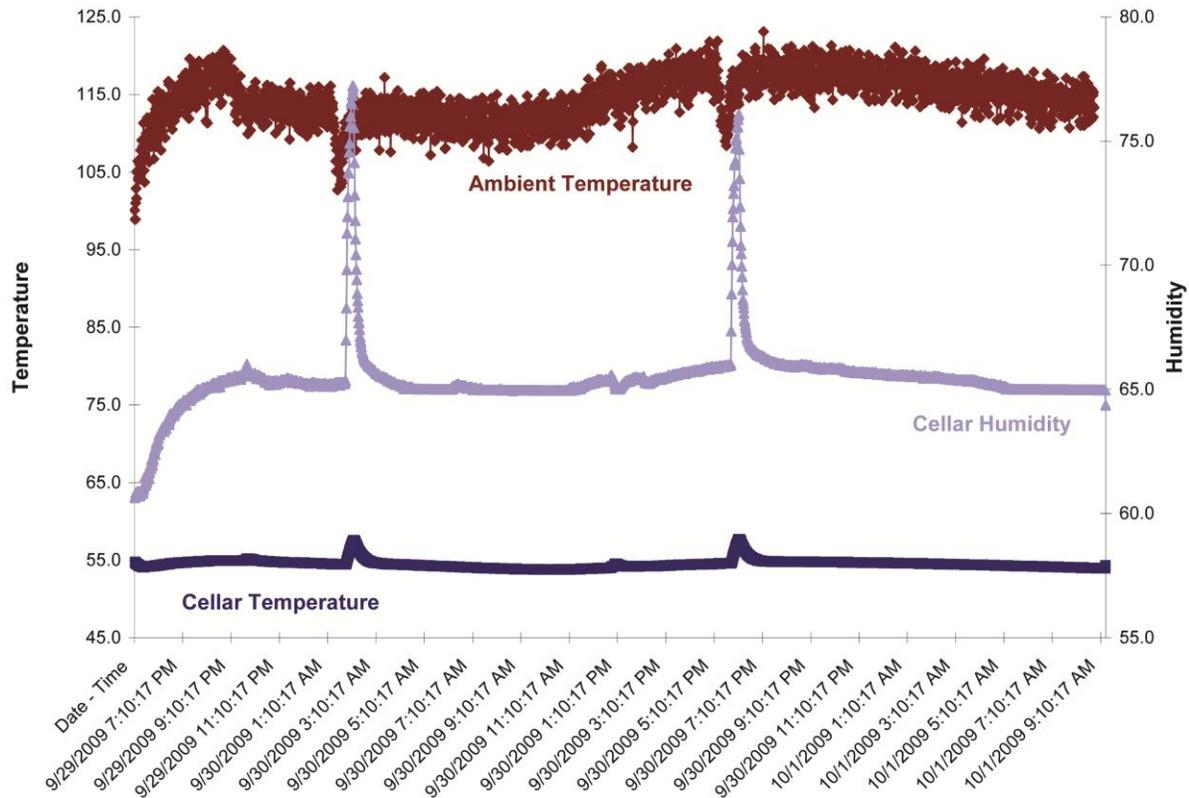


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(2) For reference purposes, the calculated BTUH at 55°F for **Breezair WKL 4000** is 3351 and **WhisperKool XLT 4200** is 3084.

4200VS Cooling Performance

Table III



Summary

We tested CellarPro's 4200VSi wine cooling unit for 36 hours by heating the condenser environment to 115°F. Despite the grueling heat, CellarPro's 4200VSi was able to maintain temperatures at 55°F and relative humidity at 65% inside the wine cellar. (The short spikes reflect the cooling unit's auto-defrost cycle.)

Test Conditions

- The cooling unit was tested in a 1000 cubic foot wine cellar with R-13 rigid foam insulation and a moisture barrier
- The wine cellar was filled with approximately 1000 bottles
- The cooling unit was set to maintain 55°F (53°F "off" and 4°F Differential) (1)
- The temperature measurements inside the wine cellar were taken at the far wall (approximately 12' from the cooling unit)



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Option and Upgrades

Table IV

Front Duct Kit:	Custom duct hood allows the cold air intake/exhaust to be ducted up to 100 equivalent feet (50 feet per opening). Duct openings are designed to attach to two 8" ducts for condenser intake and exhaust. Design allows easy access to cooling unit controls; requires an additional 9" of height at the front of the unit. Kit includes duct hood and 50 feet (2x25) of 8-inch insulated (R-6) ducting.
Rear Duct Kit:	Custom duct hood allows the hot air intake/exhaust to be ducted up to 100 equivalent feet (50 feet per opening). Duct openings are designed to attach to two 8" ducts for condenser intake and exhaust. Removable slot plate provides easy access to removable air filter. Kit includes duct hood and 50 feet (2x25) of 8-inch insulated (R-6) ducting.
Rear Duct Kit with Fan:	Custom duct hood and inline fan allow the hot air intake/exhaust to be ducted up to 200 equivalent feet (100 feet per opening). Duct openings are designed to attach to two 8" ducts for condenser intake and exhaust. Removable slot plate provides easy access to our air filter. Inline fan receives switched power from the cooling unit. Kit includes duct hood, 240 CFM 8-inch inline fan and 50 feet (2x25) of 8-inch insulated (R-6) ducting.
Bottle Probe:	CellarPro 4200 cooling units are designed to cycle on and off based on the temperature of the return air in the wine cellar. Because the cooling unit is located near the top of the cellar, it will cycle based on the temperature of the air at the top of the cellar, which is by design given that warm air rises. However, for instances when the wine cellar is unevenly shaped and/or the cooling unit cannot be mounted near the ceiling, it may be useful to use a bottle probe for determining the on/off cycle of the cooling unit. In addition to being able to accommodate bottle probes, CellarPro cooling units can be programmed to have a tighter temperature differential, so that wine temperature variations remain in a tight band.
Crankcase Heater:	When the cooling unit is exposed to cold temperatures below 40°F, the refrigerant in the compressor can migrate into the crankcase oil when the compressor is not running. On startup, this can cause excessive motor wear and a loss of refrigeration efficiency. Our self-regulating crankcase heater is wrapped around the compressor and provides reliable peak heating during critical cold periods down to 20°F, and reduces its heating once the compressor starts up or the air temperature rises.
Air Filters:	We sell replacement fiberglass filters (interior use only), as well as aluminum air filters that can be used in interior or exterior environments. The aluminum filter is reusable and can be cleaned with steam or hot water spray. Filters meet UL Class 2 flame retardance requirements. Maximum temperature is 240°F.



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CellarPro 4200 Series Price Sheet

As of 4/30/10

4200VSi	\$2,695
4200VSx	3,199
Front Duct Hood	299
Rear Duct Hood	299
Rear Duct Hood with Fan	399
Remote Control Panel	225
Bottle Probe	99
Cold-Temperature Crankcase Heater	99
Reusable Aluminum Air Filter	50
Poly-Coated Fiberglass Air Filter (2-Pack)	25