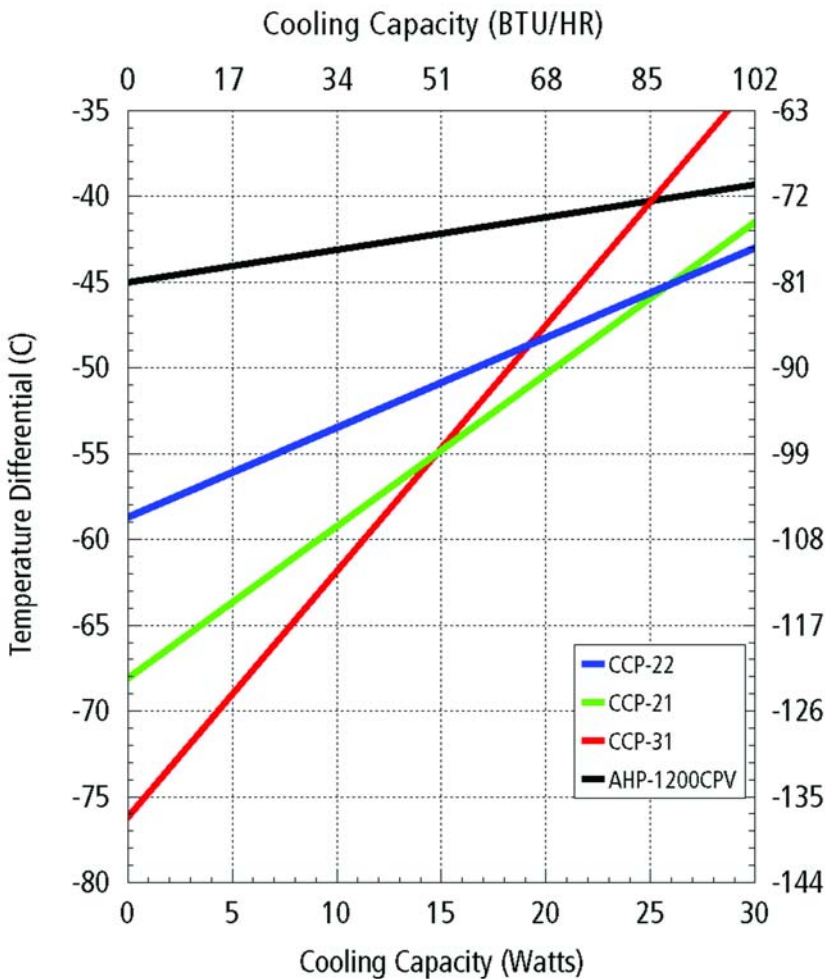


# CPV Cascades

Cascades  
Cascade Control

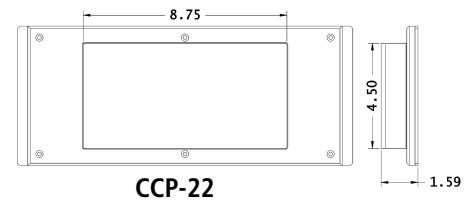
## CASCADE PERFORMANCE CURVE



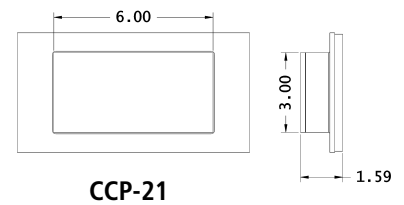
## LOW TEMPERATURE CASCADES

One thermoelectric stacked on top of another with the goal of increasing the maximum temperature differential is a "cascade". These assemblies are mounted to model AHP-1200CPV cold plate to create 2 and 3 stage cascades. The performance curves shown are actual tests run under very well insulated conditions and active loads. The performance will vary with the degree of insulation, with the amount of the active load and with the ambient temperature.

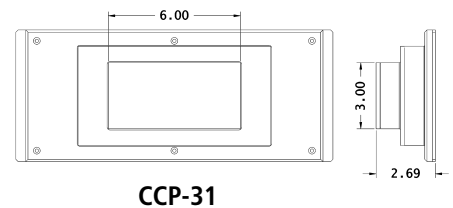
### TWO STAGE - LARGE PLATE



### TWO STAGE - SMALL PLATE



### THREE STAGE

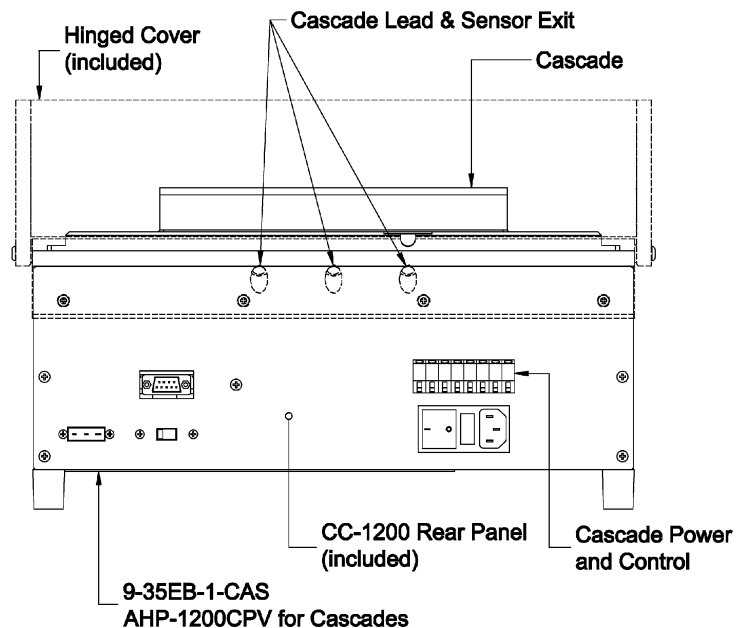


## CASCADE CONTROL

Cascade Control is a rear panel or complete system which provides internal power and front panel temperature control for your cascade. It becomes part of your **AHP-1200CPV** whether you add it yourself or order it as a finished product which can be used as a normal CPV or with an optional cascade.

**Part Number CC-1200:** A back panel used to modify your existing high capacity **AHP-1200CPV** for cascade control. You will need to remove the existing rear panel and perform some minor wiring modifications. An external 24 VDC power supply will be required.

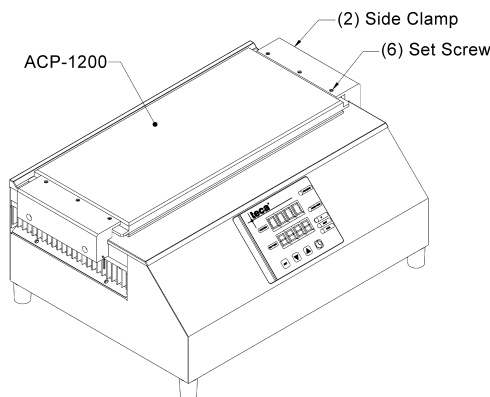
**Part Number 9-35EB-1-CAS:** An **AHP-1200CPV** with all the options needed for cascade control. Those options include the back panel part # **CC-1200** and hinged cover part # **CH-1200**.



## PLATE OPTIONS

### ACCESSORY PLATES

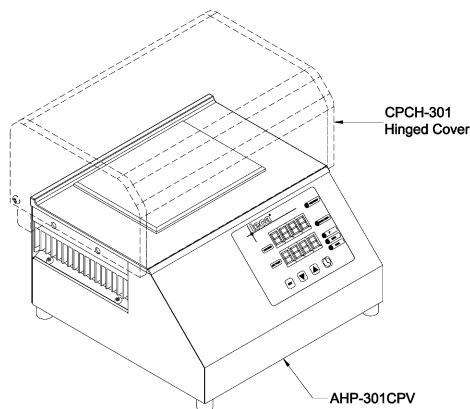
Clear anodized aluminum Feature Plates are clamped to CPV cold plates from the side. They come with the side clamps and are blank as shown below. Modify them to your needs, adding taps, grooves and other features. Swap different plates for different jobs. Use them as fixture plates.



**ACP-1200** 13.3 X 5.77 Surface  
Contact TECA for more details.

**ACP-301** 6.2 X 4.7 Surface  
Contact TECA for more details.

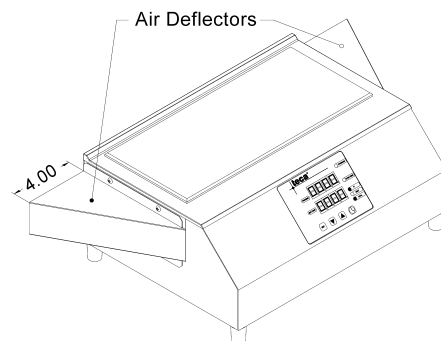
### CLEAR COVERS



**C-301** 10 X 6.5 X 4 cover  
**CH-301** 11 X 7.4 X 4 hinged cover  
**CN-301** cover for use with ACP-301  
**CHN-301** hinged cover for used with ACP-301

**C-1200** 15 X 8 X 5 cover  
**CH-1200** 16 X 9.3 X 5 hinged cover  
**CN-1200** cover for use with ACP-1200  
**CHN-1200** hinged cover for used with ACP-1200

### AIR DEFLECTOR



**AD-1200**  
Fully reversible air deflector for AHP-1200CPV exhaust.

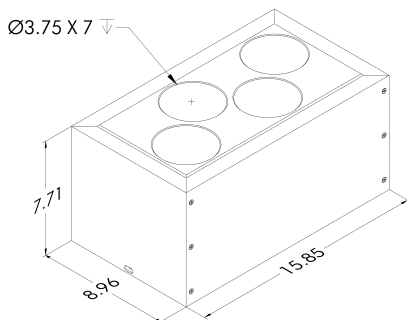
### BARRIERS

Sized for a convenient fit around cold plates, tap plates and Pyrex plates combinations.

**BH-301** 14.2 X 6.7 X 0.375 cover  
**BH-1200** 6.8 X 5.3 X 0.375 cover  
*H = height in inches (3, 6, 9 standard)*  
 Example: B6-1200

### COLD WELL

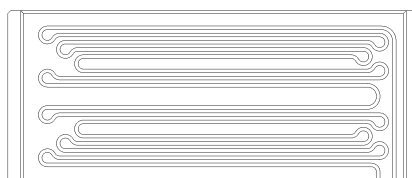
Used with 1000 mL Boston Round bottles.



**CWB-01** Layered Aluminum cold well block for four 1 Liter bottles. PVC Insulation included.  
For other configurations consult factory.

### TUBE CHILLER

A Tube Chiller Plate has channels designed for specific size flexible tubing. When a fluid flows through the tubing it can be heated or cooled without introducing any type of contaminants. Temperature differentials vary with fluid flow rate and specific heat. On site evaluations recommended.



**TC-1** Accessory plate with channels for 0.125" dia tubing. Other tubing diameters available.

**TCC-1** Hinged cover for TC-1

### PYREX PLATES

Borosilicate substrate used to protect cold plate surface from sharp instruments. these plates can be frozen in place or secured using GPC-1200 or GPC-301 clamps.

**GP-1200** 13.30 X 5.77 X 0.125  
**GP-301** 6.00 X 4.50 X 0.125

### INSULATION

Handy sized and easily cut pieces of closed cell polyethylene insulation.

**INS-03** 15" X 2" X 8" Use with AHP-1200CPV  
**INS-04** 10" X 2" X 6" Use with AHP-301CPV

## MISC. ACCESSORIES

### RTD SENSOR

**RTD-PROBE** 100 Ω, 3 wire, platinum RTD 6" long, 1/8" diameter  
**RTD-RING** 100 Ω, 3 wire, platinum RTD surface mount

### CONVERTER

**C-USB** USB to RS-232 converter "includes adapter, cable and software"

### CABLE

**C-RS232** RS-232 Cable, DB9 Male to DB9 Female 10' long