

**Temperature Control Units**

Water & Oil  
30° - 500°F

**Portable Chillers**

Air & Water-Cooled  
20° - 70°F

**Central Chillers**

Air & Water-Cooled  
Packages & Modules  
20° - 70°F

**Pump Tank Stations**

Chilled or Tower Water  
200 - 3600 gallons

**Cooling Tower Cells**

45 - 540 tons

**Multiple Temperature Units**

**Filters**

**Heat Exchangers**

**WARRANTY**

**1 Year:**

Covering parts and labor

**CUSTOM DESIGNS**

If one of our standard models does not meet your needs, then we can design a unit that will.

## BI-TEMP & TRI-TEMP

- Up to 4 Temperature Zones
- Independent Chiller Circuit with Reservoir
- Independent Zones of Temperature Control

### CONTROL UP TO 4 TEMPERATURE ZONES

TRI Temp and BI Temp portable chillers are designed for applications where independent zones of chilled water and temperature stabilized water are necessary.

**CHILLED WATER:** 20°F to 70°F

**PROCESS WATER:** 30°F to 250°F

**AVAILABLE CAPACITIES:** 1.5 to 40 tons

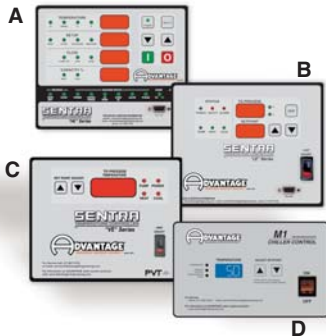
**AVAILABLE CHILLED WATER PUMP HP:** .75 to 5

**AVAILABLE PROCESS PUMP HP:**  
• .5 to 7.5

**AVAILABLE PROCESS HEATER KW:** 4.5 to 36



RC-5AD TRI-Temp shown with optional heating zone instruments and disconnect switch.



**CONTROL INSTRUMENTS...**

- A. Sentra HE instrument.
- B. Sentra LE instrument.
- C. Sentra VE instrument.
- D. Maximum M1 instrument.

### YOUR PROCESS DEMANDS THE MOST DEPENDABLE CENTRAL CHILLER AVAILABLE.

Advantage Bi-Temp & Tri-Temp Series units won't let you down. Every Advantage unit is supported by application expertise, engineering know how, and un-surpassed service support from experienced technicians.

*Since 1977 Advantage has been applying, designing and servicing the best chillers available.*

**APPLICATIONS**

Bi-Temp and Tri-Temp units service a variety of process applications.



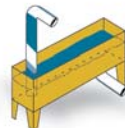
Molds & Dies



Nozzles, Barrels & Tools



Heat Exchangers



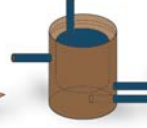
Troughs & Tanks



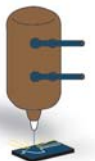
Rolls



Radiators and Air Coils



Jacketed Vessels and Mixers



Lasers

# SPECIFICATIONS

	Model <sup>1</sup>	TRI-TEMP								BI-TEMP									
		1.5AD	2AD	4AD	5AD	5WD	7.5AD	7.5WD	10AD	10WD	1.5A	2A	4A	5A	5W	7.5A	7.5W	10A	10W
<b>Compressor</b>	Capacity	1.4	2	4	5	5	7½	7½	10	10	1.4	2	4	5	5	7½	7½	10	10
	HP	1.5	2	4	5	5	7½	7½	10	10	1.5	2	4	5	5	7½	7½	10	10
	Type <sup>2</sup>	HR	HR	HS	HS	HS	HS	HS	HS	HS	HR	HR	HS	HS	HS	HS	HS	HS	HS
	Refrigerant	R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22
<b>Chiller Pump</b>	HP	¾	¾	¾	2	2	2	2	2	2	¾	¾	¾	2	2	2	2	2	2
	GPM	3.6	4.8	9.6	12	12	18	18	24	24	3.6	4.8	9.6	12	12	18	18	24	24
	PSI	40	40	38	63	63	58	58	57	57	40	40	38	63	63	58	58	57	57
<b>Reservoir Capacity</b>	Gallons	7.5	7.5	25	25	25	25	25	25	25	7.5	7.5	25	25	25	25	25	25	25
<b>Process Heater</b>	KW	10	10	10	10	10	10	10	10	10	4.5	9	10	10	10	10	10	10	10
<b>Process Pump</b>	HP	¾	¾	¾	¾	¾	¾	¾	¾	¾	½	¾	¾	¾	¾	¾	¾	¾	¾
	GPM	35	35	35	35	35	35	35	35	35	20	25	35	35	35	35	35	35	35
	PSI	30	30	30	30	30	30	30	30	30	25	30	30	30	30	30	30	30	30
<b>Connection Sizes</b> (inches)	Chilled Water	½	½	½	½	½	½	½	½	¼	½	½	¼	¼	¼	¼	¼	¼	¼
	Process	1½	1½	1½	1½	1½	1½	1½	1½	1¼	1	1	1¼	1¼	1¼	1¼	1¼	1¼	1¼
	Make-Up	½	½	½	½	½	½	½	½	½	n/a	n/a	½	½	½	½	½	½	½
	Fill Port	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1½	1½	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Condenser	n/a	n/a	n/a	n/a	¾	n/a	1	n/a	1	n/a	n/a	n/a	n/a	¾	n/a	1	n/a	1
<b>Air-Cooled Condenser</b>	Fan HP	¼	¼	¾	¾	n/a	¾	n/a	¾	n/a	¼	¼	¾	¾	n/a	¾	n/a	¾	n/a
	Fan Quantity	1	1	1	1	n/a	2	n/a	2	n/a	1	1	1	1	n/a	2	n/a	2	n/a
	CFM x 1000	2.4	2.4	5	5	n/a	10	n/a	10	n/a	2.4	2.4	5	5	n/a	10	n/a	10	n/a
<b>Water-Cooled Condenser</b>	Tower @ 85°F	n/a	n/a	n/a	n/a	15	n/a	23	n/a	30	n/a	n/a	n/a	n/a	15	n/a	23	n/a	30
	City @ 60°F	n/a	n/a	n/a	n/a	8	n/a	12	n/a	15	n/a	n/a	n/a	n/a	8	n/a	12	n/a	15
<b>Unit Amperage (FLA)</b>	230/3/60	56	67	81	86	82	101	96	108	104	28	39	53	58	54	73	68	80	76
	460/3/60	28	34	40	43	41	51	48	54	52	14	20	26	29	27	37	34	40	38
	575/3/60	n/a	n/a	33	36	34	43	40	45	43	n/a	n/a	21	24	22	31	28	33	31
<b>Dimensions<sup>3</sup> (inches)</b>	Height	57	57	61	61	57	61	57	61	57	41	41	61	61	57	61	57	61	57
	Width	36	36	34	34	34	34	34	34	34	33	33	34	34	42	34	42	34	42
	Depth	38	38	63	63	63	78	63	78	63	54	54	40	63	40	78	40	78	40
<b>Weight (approx LBS)</b>	Shipping	850	870	1300	1500	1050	1700	1100	1750	1125	600	620	1050	1250	800	1450	850	1500	875

Notes: 1. Nearly all Advantage Bi-Temp and Tri-Temp units are customized to meet specific customer requirements. Use this table for reference only. refer to your specific proposal for machine details.  
 2. HR = Hermetic reciprocating compressor. HS = Hermetic scroll compressor.  
 3. Because many units are customized, please confirm your model's dimensions with the factory.

## STANDARD FEATURES

Notes: 1. 1.5 - 2 ton units only. 2. 4 - 10 ton units only.

### GENERAL:

- Rugged frame<sup>2</sup> with casters for portability
- Painted enclosure panels

### REFRIGERANT CIRCUIT:

- Hermetic scroll<sup>2</sup> or reciprocating<sup>1</sup> compressor
- Filter/dryer, Sight glass & moisture indicator
- Thermostatic expansion valve
- Liquid line solenoid & Electric hot gas by-pass<sup>2</sup>
- Mechanical hot gas by-pass<sup>1</sup>
- Stainless/copper brazed plate evaporator
- Service valves
- Water regulator valve (water-cooled models)

### COOLANT CIRCUIT:

- Stainless steel centrifugal pump
- Insulated reservoir
- Reservoir level sight gauge
- Automatic water make-up

### HEATING CIRCUIT:

- Cast iron centrifugal pump with pump seal flush
- Flanged bolt-in heater
- Cast iron tanks for 9, 10, and 16 KW heaters
- Separate heating and cooling tanks
- Mild steel tanks for 4.5, 12 and 18 KW and larger
- Cooling solenoid valve

### LIMITS:

- Refrigerant high & low pressure
- Chilled water freeze-stat
- Motor overload protection

- Chilled water low flow by-pass
- Chilled water pressure reducing valve on supply of heating zone<sup>2</sup>
- Refrigerant pressure relief valve
- Heating circuit water pressure relief valve
- Heating circuit high temperature limit

### PRESSURE GAUGES AND THERMOMETERS:

- Refrigerant high & low pressure
- Chilled water pump pressure
- Heating circuit pump pressure
- Chilled & heater water temperature

### INSTRUMENTATION (1.5 & 2 tons):

- Chilled water mechanical thermostat control
- Heating zone(s) uses Sentra VE microprocessor with machine status lights and digital temperature display.

### INSTRUMENTATION (4-10 tons):

- Advantage M1 chilled water microprocessor control. Status LED's for compressor & capacity. Error LED: refrigerant circuit. Temperature display for to & from process and set point.
  - Heating zone(s) uses Sentra VE microprocessor with machine status lights and digital temperature display.
- ELECTRICAL:**
- NEMA 1 with power distribution block
  - Branch circuit fusing on 4-10 ton BI-Temp and 1.5-10 ton TRI-Temp

### WARRANTY:

- 1 year parts and labor

## OPTIONS

### ELECTRICAL:

- NEMA 12 lights and operators
- Primary disconnect switch

### FLUID CIRCUIT:

- TEFC pump motors
- Overhead piping kit
- Process line shut-off valves
- Non-ferrous piping construction
- Motor driven cooling valve

### REFRIGERANT CIRCUIT:

- 15 to 30 ton capacities
- Compressor CPR valve

### INSTRUMENTATION:

- Heating zone control: Sentra VE, Sentra LE, Sentra HE, Omega CN 9000 or CN 8502 series, or alternate off the shelf controller quoted to your specifications
- Audible or audible/visual alarm



Phone: 317-887-0729 Web: [www.AdvantageEngineering.com](http://www.AdvantageEngineering.com)

TEMPERATURE CONTROLLERS • PORTABLE CHILLERS • CENTRAL CHILLERS • PUMP TANK STATIONS • TOWER SYSTEMS • FILTERS

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