

Temperature Control Units

Water & Oil
30° - 50°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

- Independent Chilled Water Circuit
- Independent Tempered Water Circuits



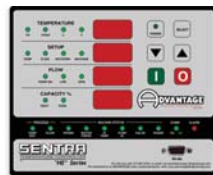
RC-5AD TRI-Temp shown with optional general purpose tempered water zone control and disconnect switch.

Bi-Temp and Tri-Temp units are designed for applications where independent zones of chilled water and temperature stabilized water are necessary.

Bi-temp models (with prefix BI-) include a chilled water circuit and one(1) tempered water circuit. The chilled water circuit can provide 48°F - 70°F cooling water when no glycol is used and down to 20°F when glycol is added to the system. The tempered water circuit can supply temperature stabilized water between approximately 10°F above the chilled water set point to 250°F by heating and cooling the process water as required.

Tri-temp models (with prefix RC-) include a chilled water circuit and two (2) tempered water circuits. The chilled water circuit can provide 48°F - 70°F cooling water when no glycol is used and down to 20°F when glycol is added to the system. The tempered water circuits can each supply temperature stabilized water between approximately 10°F above the chilled water set point to 250°F by heating and cooling the process water as required.

TEMPERED WATER CIRCUIT CONTROLS ...



Sentra HE



Sentra LE



Sentra VE

CHILLED WATER CONTROL ...



Maximum M1

APPLICATIONS

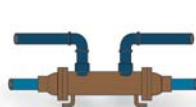
Bi-Temp and Tri-Temp units service a variety of process applications.



Molds & Dies



Nozzles, Barrels & Tools



Heat Exchangers



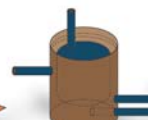
Troughs & Tanks



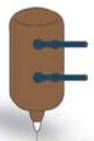
Rolls



Radiators and Air Coils



Jacketed Vessels and Mixers



Lasers

STANDARD FEATURES

REFRIGERANT CIRCUIT:

- Hermetic scroll or reciprocating compressor
- Filter/dryer, Sight glass & moisture indicator
- Thermostatic expansion valve
- Capacity control with Digital Scroll technology or hot gas bypass
- Stainless/copper brazed plate evaporator
- Service valves
- Refrigerant pressure relief valve
- Water regulator valve (water-cooled models)
- R-134A, R-410A or R-407 refrigerant

CHILLED WATER CIRCUIT:

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

TEMPERED CIRCUIT:

- Cast iron centrifugal pump with seal flush
- Flanged bolt-in heater
- Cast iron tanks for 10 and 16 KW heaters
- Separate heating and cooling tanks
- Cooling solenoid valve (VE) or modulating valve (LE & HE)

WARRANTY:

- 1 year parts and labor

LIMITS:

- Refrigerant high & low pressure
- Motor overload protection
- 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:

- Advantage M1 chilled water microprocessor control. Status LED's for compressor & capacity. Error LED: refrigerant circuit. Temperature display for to process and set point.
- Tempered water circuits use Sentra VE microprocessor with machine status lights and digital temperature display.

ELECTRICAL:

- NEMA 1 with power distribution block
- Branch circuit fusing protection.
- 5 kA RMS SSCR

GENERAL:

- Rugged frame with casters for portability
- Painted enclosure panels

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 construction
- Motor driven cooling valve
- Chilled water low flow by-pass
- Chilled water pressure reducing valve on supply of heating zone

INSTRUMENTATION:

- Tempered water circuit control: Sentra VE, Sentra LE, Sentra HE, General Purpose 1/16, 1/8 or 1/4 DIN, or alternate controller quoted to your specifications
- Audible or audible/visual alarm

SPECIFICATIONS¹

Model ¹	TRI-TEMP RC-										BI-TEMP BI-									
	1.5AD	2AD	4AD	5AD	5WD	7.5AD	7.5WD	10AD	10WD		1.5A	2A	4A	5A	5W	7.5A	7.5W	10A	10W	
Chilled Water Circuit																				
Compressor	Capacity	1.5	2	4	5	5	7½	7½	10	10	1.5	2	4	5	5	7½	7½	10	10	
Chiller Pump	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	32	31	30	50	50	48	48	48	46	32	31	30	52	50	48	48	46	46	
Reservoir Capacity	Gallons	7.5	7.5	25	25	25	25	25	25	25	7.5	7.5	25	25	25	25	25	25	25	
Air-Cooled Condenser	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	
Water-Cooled Condenser	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	
Tempered Water Circuit(s)																				
# Of Circuits		2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	
Process Heater (per circuit)	KW	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
Process Pump (per circuit)	HP	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	
	GPM	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	
	PSI	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
General																				
Connection Sizes (inches)	Chilled Water	½	½	½	½	½	½	½	½	¼	½	½	¼	¼	¼	¼	¼	¼	¼	
	Tempered Water	1¼	1¼	1¼	1¼	1¼	1¼	1¼	1¼	1¼	1¼	1¼	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	
Unit Amperage (FLA)	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	
Dimensions ² (inches)	Height	57	57	61	61	57	61	57	61	57	41	41	61	61	57	61	57	61	57	
	Width	42	46	34	34	34	34	34	34	34	33	33	34	34	42	34	42	34	42	
	Depth	42	46	63	63	63	78	63	78	63	54	54	40	63	40	78	40	78	40	
Weight (approx LBS)	Shipping	850	870	1300	1500	1050	1700	1100	1750	1125	600	620	1050	1250	800	1450	850	1500	875	

Notes: 1. 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. Dimension shown are approximate. Selection of options or customized configurations will change dimensions.



Phone: 317-887-0729 Web: www.AdvantageEngineering.com

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

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