

UP TO 4  
TEMPERATURE  
ZONES

# BI - TEMP CHILLERS TRI - TEMP CHILLERS



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



**ADVANTAGE 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 TEMPERATURES:**

- 20°F to 65°F

**PROCESS TEMPERATURES:**

- 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

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



Sentra HE Instrument



Sentra LE Instrument



Sentra VE Instrument



IK Instrument

## FEATURES - AT A GLANCE

- Stainless steel enclosure panels
- Insulated chilled water reservoir
- Independent chiller circuit with reservoir
- Independent zones of temperature control
- Compact physical size
- 1 year parts and labor warranty



# SPECIFICATIONS

SPECIFICATIONS MODEL	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		
COMPRESSOR	Capacity	1.4	2	4	5	5	7 1/2	7 1/2	10	10	1.4	2	4	5	5	7 1/2	7 1/2	10	10	
	HP	1.5	2	4	5	5	7 1/2	7 1/2	10	10	1.5	2	4	5	5	7 1/2	7 1/2	10	10	
	Type	HR <sup>1</sup>	HR <sup>1</sup>	HS <sup>1</sup>	HS <sup>2</sup>	HS <sup>2</sup>	HS <sup>2</sup>	HS <sup>2</sup>	HS <sup>2</sup>	HS <sup>2</sup>	HR <sup>1</sup>	HR <sup>1</sup>	HS <sup>2</sup>	HS <sup>2</sup>	HS <sup>2</sup>	HS <sup>2</sup>	HS <sup>2</sup>	HS <sup>2</sup>	HS <sup>2</sup>	HS <sup>2</sup>
	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	R-22
CHILLER PUMP	HP	3/4	3/4	3/4	2	2	2	2	2	3/4	3/4	3/4	2	2	2	2	2	2	2	
	GPM	3.6	4.8	9.6	12	12	18	18	24	3.6	4.8	9.6	12	12	18	18	24	24	24	
	PSI	40	40	38	63	63	58	58	57	40	40	38	63	63	58	58	57	57	57	
TANK CAPACITY	Gallons	7.5	7.5	25	25	25	25	25	25	7.5	7.5	25	25	25	25	25	25	25	25	
HEATER	KW	10	10	10	10	10	10	10	10	4.5	9	10	10	10	10	10	10	10	10	
PROCESS PUMP	HP	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	1/2	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	
	GPM	35	35	35	35	35	35	35	35	20	25	35	35	35	35	35	35	35	35	
	PSI	30	30	30	30	30	30	30	30	25	30	30	30	30	30	30	30	30	30	
CONNECTION SIZES (inches)	Chilled Water	1/2"	1/2"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1/2"	1/2"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	
	Process	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1"	1"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	
	Make-Up	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	n/a	n/a	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	
	Fill Port	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1 1/2"	1 1/2"	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	Condenser	n/a	n/a	n/a	n/a	3/4"	n/a	1"	n/a	1"	n/a	n/a	n/a	n/a	3/4"	n/a	1"	n/a	1"	
AIR-COOLED CONDENSER	Fan HP	1/4	1/4	3/4	3/4	n/a	3/4	n/a	3/4	1/4	1/4	3/4	3/4	n/a	3/4	n/a	3/4	n/a		
	Fan Quantity	1	1	1	1	n/a	2	n/a	2	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	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	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	8	n/a	12	n/a	15		
AMPS RLA/FLA	230/3/60	56	67	81	86	82	101	96	108	28	39	53	58	54	73	68	80	76		
	460/3/60	28	34	40	43	41	51	48	54	14	20	26	29	27	37	34	40	38		
	575/3/60	n/a	n/a	33	36	34	43	40	45	n/a	n/a	21	24	22	31	28	33	31		
DIMENSIONS (inches)	Height	57	57	61	61	57	61	57	61	52	52	61	61	57	61	57	61	57		
	Width	36	36	34	34	34	34	34	34	41	41	34	34	42	34	42	34	42		
	Depth	38	38	63	63	63	78	63	78	20	20	40	63	40	78	40	78	40		
WEIGHTS (approx.)	Shipping	850	870	1300	1500	1050	1700	1100	1750	600	620	1050	1250	800	1450	850	1500	875		

## STANDARD FEATURES

### GENERAL:

- Stainless steel and galvanized frame<sup>2</sup>
- Welded frame construction<sup>1</sup>
- Stainless steel enclosure panels
- Casters for portability

### REFRIGERANT CIRCUIT:

- Hermetic scroll compressor<sup>2</sup>
- Hermetic reciprocating compressor<sup>1</sup>
- Filter/dryer
- Sight glass & moisture indicator
- Thermostatic expansion valve
- Liquid line solenoid<sup>2</sup>
- 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 (expect on 1.5 and 2 ton BI-temp units)

### HEATING CIRCUIT:

- Cast iron centrifugal pump
- Pump seal flush
- Flanged bolt-in heater

### INCOLY HEATER SHEATH

- 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
- 3/8" cooling solenoid valve<sup>1</sup>
- 1/2" cooling solenoid valve<sup>2</sup>

### SAFETIES:

- Refrigerant high pressure safety
- Refrigerant low pressure safety
- 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 pressure
- Refrigerant low pressure
- Chilled water pump pressure
- Heating circuit pump pressure
- Chilled water temperature
- Heated water temperature

### INSTRUMENTATION (1.5 & 2 tons):

- Chilled water mechanical thermostat control
- Heating zone(s) uses Sentra VE microprocessor with power, pump, heat, cool, safety and alarm LED's plus digital setpoint and 'to process' temperature display in °F or °C, also includes SPI communications

### INSTRUMENTATION (4-10 tons):

- Ice Cube 'IK' chilled water microprocessor control. Status LED's for power, pump compressor, capacity control and alarm. Error LED's for freeze-stat, refrigerant circuit, reservoir level and low flow. Digital temperature display for to process, from process and set point.
- Heating zone(s) microprocessor control optional. Lights include pump, heat, cool, motor overload and high temperature limit.

### 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

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

**SERVICE and WARRANTY...** Your chiller is supported by a full one year parts and labor warranty with a second year free service 'check-up'. Backed by the **ADVANTAGE** nationwide service network, service is only a phone call away. Refer to bulletin ADV-205 for complete warranty details.



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

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