Gas
Liquid & Slurry
Solid & Powder
Steam & Water

SENTRY TCU AIR-COOLED SAMPLE CHILLER

Sample Chillers

SAMPLE CONDITIONING

A temperature control unit (TCU) provides controlled temperature water (coolant) to a group of secondary sample coolers in order to ensure closely controlled sample temperatures. The Sentry® TCU air-cooled sample chillers are pre-designed, pre-piped packages available in sizes from 3 to 15 tons.

MODELS

SENQA03 | SENQA05 | | SENQA08 | SENQA10 | SENQA15

BENEFITS

With the Sentry TCU air-cooled sample chillers, all components are easily accessible for service. Each undergoes a factory run-in under a range of heat loads. Measurements are taken of critical parameters and recorded for future reference.

FEATURES

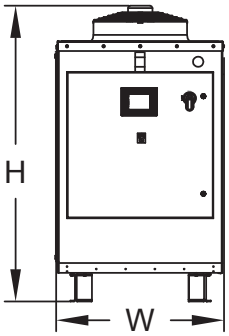
- Cools water at a precisely-controlled temperature with ±1°F (0.5°C) accuracy
- Self-contained with all necessary controls, pumping and refrigeration systems
- Uses a fan type air-cooled condenser to reject heat from the refrigeration cycle
- Local display provides quick operational snapshot
- NEMA 1 enclosure with disconnect

SPECIFICATIONS

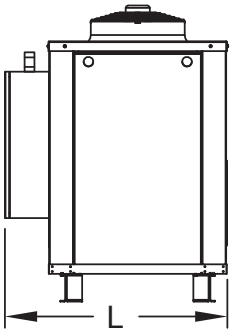
- Refrigeration
  - Hermetically sealed scroll compressor
  - Full factory refrigerant charge of HFC-410A
  - Copper brazed 316L stainless steel evaporator
  - Hot gas bypass control valve for temperature control
  - Crankcase heater
  - Sealed desiccant core filter-dryer
  - Moisture and liquid indicator
  - Thermostatic expansion valve
- Chilled Water
  - Stainless steel TEFC close-coupled centrifugal pump
  - Pressure indicator at pump discharge
  - Accurate to ±1°F (±0.5°C)
  - Adjustable make-up water pressure reducing valve
  - Pressure relief valve to protect pump and evaporator
- Controller
  - Keypad control to run system or pump alone
  - Microprocessor based PID temperature control
  - Digital contact provided for remote system start
  - Digital indication of chilled water outlet temperature
  - Clear display of operational warnings and alarms
  - General fault alarm contact for remote indicator
- Electrical
  - NEMA 1 enclosure with disconnect
  - 460 Vac / 60 Hz / 3 phase (standard)
- Options
  - High air temperature (110-120°F)
  - Outdoor installation (NEMA 4)
  - Internal electric heater for additional warming of sub-cooled samples
  - Remote condenser
  - CE

Sample. Monitor. Measure.
SENTRY
Any Application. Anywhere.

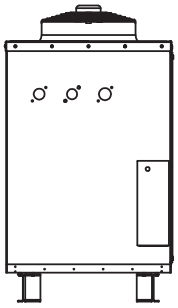
size (tons)	dimensions L x W x H (in)	dimensions L x W x H (mm)	weight lb	weight kg	chilled water connections
A03	48 x 35 x 61	1219 x 889 x 1549	720	327	2" NPT
A05	48 x 35 x 61	1219 x 889 x 1549	720	327	2" NPT
A08	75 x 35 x 61	1905 x 889 x 1549	1195	542	2½" NPT
A10	75 x 35 x 61	1905 x 889 x 1549	1195	542	2½" NPT
A15	88 x 41 x 93	2235 x 1041 x 2362	3200	1451	3" NPT



Front View



Right View


Rear View

SPECIFICATIONS

Model: SENQA		A03	A05	A08	A10	A15
cooling capacity[1]	Btu/hr (kW)	3 ton 36,000 (10.6)	5 ton 60,000 (17.6)	8 ton 96,000 (28.1)	10 ton 120,000 (35.1)	15 ton 180,000 (52.7)
chilled water flowrate	gpm (L/min)	30 (114)	50 (189)	80 (303)	100 (379)	150 (568)
pump horsepower	60 hz	2	3	5	7.5	10
	50 hz	2	3	3	5	7.5
standard heating capacity	Btu/hr (kW)	10,800 (3.2)	18,000 (5.3)	28,800 (8.4)	36,000 (10.6)	54,000 (15.8)
minimum circuit ampacity 460 Vac/60 Hz/3-phase (standard)		17.6	19.8	30.7	35.5	56.7
auxiliary heater	Btu/hr (kW)	30,000 (9)	30,000 (9)	30,000 (9)	40,000 (12)	60,000 (18)

[1] Cooling capacity based upon 110°F (43°C) ambient air and 76°F (24°C) coolant setpoint, 60 Hz power.
[2] **Note:** Cooling and heating capacity is reduced about 17% for 50 Hz power.

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