Gas
Liquid & Slurry
Solid & Powder
Steam & Water

SENTRY TCU WATER-COOLED SAMPLE CHILLER

Sample Chillers

SAMPLE CONDITIONING

Ensure you can closely control your sample temperatures with a secondary control unit. Sentry's Temperature Control Units can handle a wide variety of temperatures - 30°F to 115°F (-1°C to 46°C) – all while cooling samples within ± 1°F (0.5°C). These self-contained temperature controls ensure that pumping and refrigeration can all be managed directly from the unit. Operators can also find versatility in the varieties of TCU flow rates, capacity, and horsepower, confirming you can find the right sample chiller for your needs.

MODELS

SENQW03 | SENQW05 | SENQW08 | SENQW10 | SENQW15

FEATURES

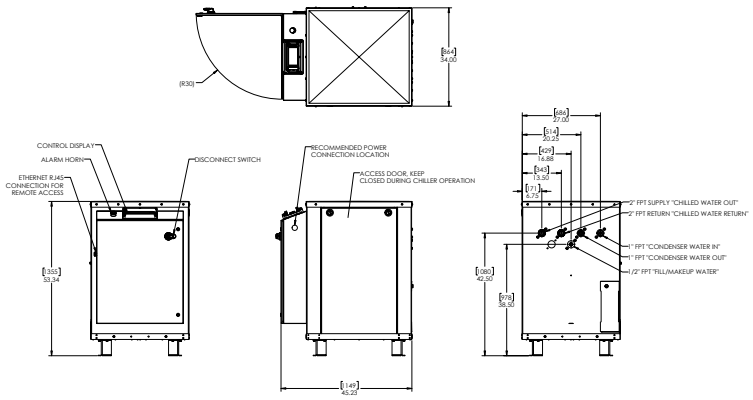
- The TCU Sample Chiller can handle capacities ranging from 3 tons to 15 tons.
- Sample Chillers are available in water cooled and air-cooled varieties.
- Ensure you know what exactly is occurring with clear displays, warnings, and alarms.
- All TCUs are available for outdoor service without degradation of performance and functionality.

SPECIFICATIONS

- Refrigeration
  - Hermetically sealed scroll compressor
  - Full factory refrigerant charge of R410A or R454B
  - 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
- Electrical
  - NEMA 1 enclosure with disconnect
  - 460 Vac / 60 Hz / 3 phase (standard)
- 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
- Options
  - Higher condenser cooling water temperature range: 60°F to 115°F (15°C to 46°C)
  - Lower condenser cooling water range: 30°F to 105°F (-1°C to 41°C)
  - Internal electric heater for additional warming of sub-cooled samples
  - Outdoor service (NEMA 4)
  - 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	condenser water connections	chilled water connections
W03	48 x 35 x 54	1219 x 889 x 1372	720	327	1 in. NPT	2 in. NPT
W05	48 x 35 x 54	1219 x 889 x 1372	720	327	1½ in. NPT	2 in. NPT
W08	75 x 35 x 54	1905 x 889 x 1372	1195	542	1½ in. NPT	2½ in. NPT
W10	75 x 35 x 54	1905 x 889 x 1372	1195	542	1½ in. NPT	2½ in. NPT
W15	75 x 35 x 54	1905 x 889 x 1372	1315	597	1½ in. NPT	3 in. NPT



SPECIFICATIONS

Model: SENQW		W03	W05	W08	W10	W15
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)
condenser water flow rate	gpm (L/min)	11 (42)	17 (64)	24 (91)	36 (136)	48 (182)
condenser water press drop	psi (bar)	6 (0.4)	6 (0.4)	8 (0.6)	7 (0.5)	8 (0.6)
minimum circuit ampacity 460 VAC/60 Hz/3-phase (standard)		13.9	18.1	27.2	32.1	52.1
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 105°F (41°C) condenser water and 76°F (24°C) coolant setpoint, 60 Hz power.
Note: Cooling and heating capacity is reduced about 17% for 50 Hz power.

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COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 =