



# SP FTS Ultra-Low Wide Temperature Range Recirculating Chillers

## Features & Benefits

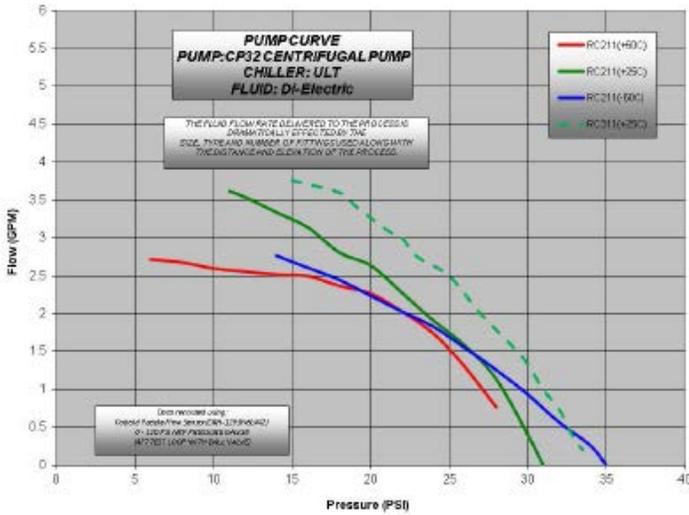
- Compact chiller designed for continuous operation
- Temperature range of -90 °C to +150 °C (with auxillary heater)
- Fast ramping of process and fast cool down rates
- Optimal heat removal capacity with quick ramping capability to decrease test time
- Mechanical refrigeration meets requirements for a large variety of applications without need for expendable cryogens such as liquid nitrogen or dry ice
- Precise temperature control and stability
- RS232 interface allows remote control and data collection
- Portable, caster mounted
- Centrifugal or positive displacement pump options available

## Fluid Selection Tip

For best pumping or stirring results, choose a fluid medium with a kinematic viscosity of 20 centistokes or less over the full operating temperature range. Remember, the heat exchanger in the recirculating cooler may be several degrees colder than your process.



# SP FTS Ultra-Low



## Additional Options & Accessories

### High Pressure Pump

- Internal high pressure pump option available on all models can deliver 4 gpm up to 8 psi

### External High Pressure Bypass

- The External High Pressure Bypass allows the user to limit maximum process pressure; mounted externally between the chiller inlet and outlet; includes 0-160 psi gauge (minimum setting 5 psi)

### Digital Deluxe Controller

- Provides additional safeties, including Low Fluid Level, low Flow and Over-Temp with contact closure for external alarms; also includes external RTD for remote temperature control and monitoring, and auxiliary heater for rapid transition to +75 °C

Model		RC210	RC211	RC311	RC311GWT
Heat Removal (watts/BTUs)	-20°C	1350/4610	1350/4610	3400/11590	3400/11590
	-30°C	1250/4260	1250/4260	3000/10230	3000/10230
	-40°C	1150/3925	1150/3925	2700/9207	2700/9207
	-50°C	1000/3410	1000/3410	2400/8184	2400/8184
	-60°C	880/3005	880/3005	1800/6130	1800/6130
	-70°C	550/1877	550/1877	1200/4090	1200/4090
	-80°C	-	-	500/1705	-
Temperature Range °C		-80 to -10 °C	-80 to 75 °C	-90 to 75 °C	-75 °C to 150 °C
Reservoir	Liters	5	5	5	11.6
Compressor		2 @ 1hp	2 @ 1hp	2 @ 4hp	2 @ 4hp
Controller Interface (RS232)		Digital / RS232	Deluxe Digital / RS232	Deluxe Digital / RS232	Deluxe Digital / RS232
Control Stability <sup>1</sup>	± °C	0.1	0.1	0.3	0.3
Heater (Nominal 240V)		-	1500W	1500W	3500W
Pump: Standard - Centrifugal		2 to 3 gpm @ 22 psi	2 to 3 gpm @ 22 psi	2 to 3 gpm @ 22 psi	2 to 3 gpm @ 22 psi
Option: Positive Displacement		4 gpm up to 85 psi	4 gpm up to 85 psi	4 gpm up to 85 psi	4 gpm up to 85 psi
Dimensions (w x d x h)	cm	53 x 74 x 122	53 x 74 x 122	53 x 74 x 145	53 x 74 x 145
	inches	21 x 29 x 48	21 x 29 x 48	21 x 29 x 57	21 x 29 x 57
Weight	kg / lbs	177 / 390	177 / 390	227 / 500	227 / 500
Electrical Configuration	60Hz Option	208 or 230 V	208 or 230 V	208 or 230 V, 3 Φ	208 or 230 V, 3 Φ
	50 Hz Option <sup>2</sup>	220 V	220 V	220 V, 3 Φ	-
Utility Requirements	Fluid Connections	1/2-in NPT, male	1/2-in NPT, male	1/2-in NPT, male	1/2-in NPT, male
	Water Connections <sup>3</sup>	1/2-in NPT, female	1/2-in NPT, female	1/2-in NPT, female	1/2-in NPT, female
Air-Cooled Condenser		Standard	Standard	-	-
Water-Cooled Condenser		Requires 2 to 4 gpm	Requires 2 to 4 gpm	Requires 3 to 6 gpm	Requires 3 to 6 gpm
		12 °C to 22 °C	12 °C to 22 °C	12 °C to 22 °C	12 °C to 22 °C

Specifications are dependent on fluid choice, fluid temperatures, ambient temperature and electrical supply. Please contact SP to further discuss your requirements.

RC311 and RC311GWT are water-cooled only.

<sup>1</sup>Control Stability is process dependent

<sup>2</sup>At 50 Hz, capacity may diminish up to 17% based on conditions and application

<sup>3</sup>Water connections are for water-cooled units only



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