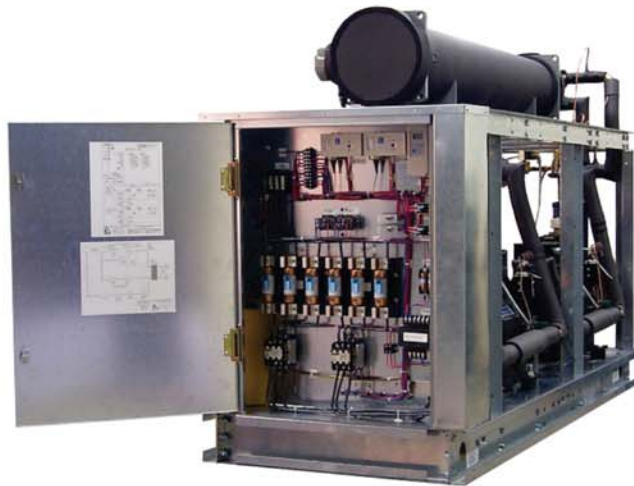


Smart ❄️ Freeze

The greatest luxury is custom

SEMI-HERMETIC WATER COOLED CHILLERS



STWC SEMI-HERMETIC FEATURES & OPTIONS



STANDARD UNIT FEATURES

- (1-12HP) 316SS brazed plate evaporator with ½" insulation
- (15-120HP) Shell & Tube evaporator
- Suction accumulator
- Water flow switch
- Fusing on all motors
- LED thermometers on CW inlet/outlet
- Semi-hermetic compressor
- Compressor & Cond. Fan contactors
- Compressor time delay relay
- Compressor oil safety control
- Manual compressor lead/lag switch
- Shell & tube condenser
- Phase monitor
- Control circuit lock out
- ½" insulation on process fluid piping
- Galvanized sheet metal base
- Replaceable liquid line filter drier
- Liquid line sight glass, solenoid & thermostatic expansion valve
- Fully charged with refrigerant
- Factory run test at load conditions

AVAILABLE OPTIONS

- Compressor run light
- Compressor cylinder unloading
- Power on indicator
- High temperature indicator
- Fault indicator with dry contacts
- Low water level indicator
- Heat traced evaporator & piping with internal thermostat
- Freeze thermostat (process water)
- Special piping for DI & RO Water
- 304SS process pump
- Water flow meter
- Shell & Tube Marine Condenser
- Hot gas bypass control
- 4 year extended compressor warranty
- Factory Assisted Start-up

STWC SEMI-HERMETIC MODEL DESCRIPTION

Example: ST WC L 301 S 2 - T3 - S

<u>WC</u>	WC = Water Cooled Condenser		
<u>L</u>	L = Low Temp. Model Blank = Standard Unit		
<u>301</u>	Nominal HP	Ex. 301 = 30HP,	010 = 1HP Etc.
<u>S</u>	S = Single Circuit Unit D = Dual Circuit Unit		
<u>2</u>	1 = R134a	2 = R22	6 = R404A, R507
<u>T3</u>	Electrical Requirement	S2 = 208/230-1-60	S6 = 220-1-50
		T3 = 208/230-3-60	T7 = 200/208-3-50
		S4 = 460-1-60	T9 = 380-3-50
		T4 = 460-3-60	
		T5 = 575-3-60	
<u>S</u>	Compressor Type	S = Semi-Hermetic	

Low ambient, or lower leaving water temperatures, can require the recirculation of glycol solutions or other fluid blends. These solutions can effect unit capacities. Please consult the factory on these or other special applications for proper sizing.

SEMI-HERMETIC STWC UNIT CAPACITY

PACKAGED WATER COOLED CHILLER

Model	LWT °F	105°F Condensing		
		Tons	KW	EER
051S	42	5.5	4.7	14.2
	44	5.8	4.7	14.8
	45	6.0	4.7	15.2
	50	6.6	4.8	16.6

120S	42	12.3	11.7	12.7
	44	12.9	11.8	13.0
	45	13.2	11.9	13.3
	50	14.4	12.1	14.3

220S	42	19.2	16.5	13.9
	44	20.0	16.6	14.4
	45	20.4	16.7	14.7
	50	22.2	16.9	15.8

351S	42	33.7	29.4	13.7
	44	34.9	29.6	14.1
	45	35.7	29.8	14.3
	50	38.6	30.3	15.2

600S	42	52.5	50.8	12.3
	44	54.2	51.2	12.7
	45	55.4	51.5	12.9
	50	59.6	52.4	13.7

240D	42	25.4	23.6	12.8
	44	26.3	23.8	13.3
	45	26.9	23.9	13.5
	50	29.6	24.4	14.5

440D	42	39.8	33.2	14.3
	44	41.0	33.4	14.7
	45	42.1	33.5	15.1
	50	45.4	33.9	16.2

701D	42	65.9	58.6	13.4
	44	68.4	59.1	13.8
	45	69.8	59.4	14.1
	50	75.8	60.6	15.0

1200D	42	97.5	100.9	12.2
	44	106.3	102.0	12.5
	45	108.3	102.5	12.7
	50	117.5	104.4	13.5

Model	LWT °F	105°F Condensing		
		Tons	KW	EER
075S	42	9.4	8.1	14.0
	44	9.8	8.1	14.5
	45	10.0	8.1	14.8
	50	11.1	8.2	16.2

150S	42	15.2	13.1	13.9
	44	15.8	13.2	14.4
	45	16.0	13.2	14.6
	50	17.5	13.4	15.7

250S	42	21.3	18.2	13.9
	44	22.1	18.4	14.4
	45	22.5	18.4	14.6
	50	24.5	18.7	15.8

400S	42	37.1	32.7	13.6
	44	38.3	32.8	14.0
	45	39.2	33.1	14.3
	50	42.5	33.6	15.2

150D	42	19.0	16.2	14.1
	44	19.7	16.3	14.6
	45	20.1	16.3	14.8
	50	21.9	16.5	16.0

300D	42	30.0	26.1	13.8
	44	31.3	26.3	14.2
	45	31.9	26.4	14.5
	50	34.8	26.7	15.7

500D	42	43.1	36.5	14.2
	44	44.5	36.8	14.5
	45	45.5	36.9	14.8
	50	49.0	37.4	15.7

800D	42	73.6	65.2	13.5
	44	76.6	65.7	13.9
	45	77.8	66.0	14.2
	50	84.8	67.3	15.2

Model	LWT °F	105°F Condensing		
		Tons	KW	EER
100S	42	11.0	9.5	14.0
	44	11.5	9.5	14.5
	45	11.8	9.5	14.8
	50	12.9	9.6	16.2

200S	42	17.1	14.0	14.6
	44	17.9	14.2	15.1
	45	18.3	14.2	15.4
	50	20.0	14.5	16.7

301S	42	28.6	24.4	14.0
	44	29.6	24.5	14.5
	45	30.3	24.6	14.7
	50	33.0	25.0	15.8

500S	42	44.2	40.4	13.1
	44	45.6	40.7	13.4
	45	46.7	40.9	13.7
	50	50.0	41.5	14.4

200D	42	22.2	18.9	14.1
	44	23.1	19.0	14.6
	45	23.6	19.1	14.8
	50	25.7	19.3	16.0

400D	42	34.5	28.2	14.7
	44	35.7	28.3	15.1
	45	36.7	28.5	15.5
	50	39.7	28.9	16.5

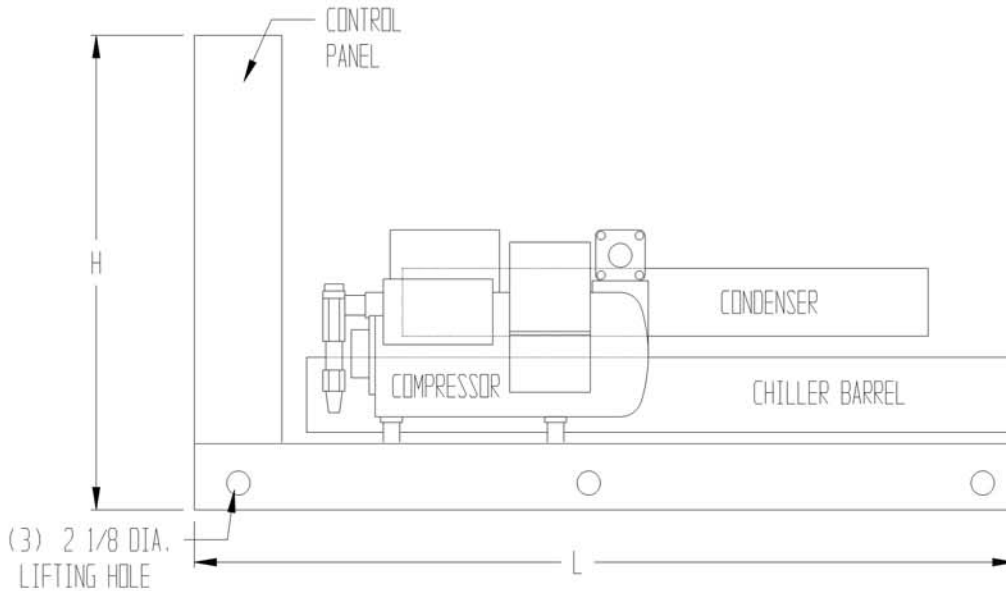
601D	42	57.3	48.7	14.1
	44	59.0	49.0	14.4
	45	60.2	49.2	14.7
	50	64.8	49.9	15.6

1000D	42	88.8	80.8	13.2
	44	92.3	81.5	13.5
	45	94.2	81.9	13.8
	50	102.9	83.6	14.8

Single Circuit Semi-Hermetic Water Cooled Chiller Specifications

SmartFreeze Model	Nominal BTUH	Evaporator		Condenser		Length Inches	Width Inches	Height Inches	Compressor			RLA Ea.	LRA Ea.	MCA	Max Fuse	Weight Pounds
		PSI Drop	Conn.	PSI Drop	Conn.				Qty.	HP	Model					
STWC051S2-T3-S STWC051S2-T4-S	69,600	5.3		4.8						5	2DD-0500	22.3 10.5	120 60	27.9 13.1	50 20	
STWC075S2-T3-S STWC075S2-T4-S	117,600	5.3	1.25" FPT	3.2			34		1	7.5	3DA-0750	41.0 20.0	215 106	51.3 25.0	90 45	680
STWC100S2-T3-S STWC100S2-T4-S	138,000	4.5		4.8	1.25" FPT					10	3DB-1000	43.6 20.0	215 106	54.5 25.0	90 45	890
STWC120S2-T3-S STWC120S2-T4-S	154,800	4.4	1.5" FPT	1.7						12	3DF-1200	48.2 23.6	275 138	60.3 29.5	100 50	
STWC150S2-T3-S STWC150S2-T4-S	189,600	5.5	3" MPT	6.4						15	3DS-1500	59.6 29.0	275 138	74.5 36.3	125 60	1010
STWC200S2-T3-S STWC200S2-T4-S	214,800	5.4		4.9		65				20	4DA-2000	66.0 33.0	308 154	82.5 41.3	125 70	1120
STWC220S2-T3-S STWC220S2-T4-S	240,000	6.8		2.1						22	4DB-2200	65.6 32.8	374 187	82.0 41.0	125 70	1170
STWC250S2-T3-S STWC250S2-T4-S	265,200	6.1	2.5" FPT	2.8	2" FPT					25	4DH-2500	82.2 41.1	428 214	102.8 51.4	175 90	
STWC301S2-T3-S STWC301S2-T4-S	355,200	6.6		4.9						30	6DB-3000	105.0 52.5	565 283	131.3 65.6	225 110	1300
STWC351S2-T3-S STWC351S2-T4-S	418,800	2.5		2.4		95				35	6DG-3500	125.0 62.5	594 297	156.3 78.1	250 125	1600
STWC400S2-T3-S STWC400S2-T4-S	459,600	5.2		3.4	2.5" FPT					40	6DJ-4000	142.0 71.0	594 297	177.5 88.8	300 150	1700
STWC500S2-T3-S STWC500S2-T4-S	547,200	10.4	3" MPT	4.7		120				50	8DP-5000	180.0 90.0	1070 535	225.0 112.5	400 200	1950
STWC600S2-T3-S STWC600S2-T4-S	650,400	8.3		2.9	3" FPT					60	8DS-6000	224.0 112.0	1070 535	280.0 140.0	500 250	2160

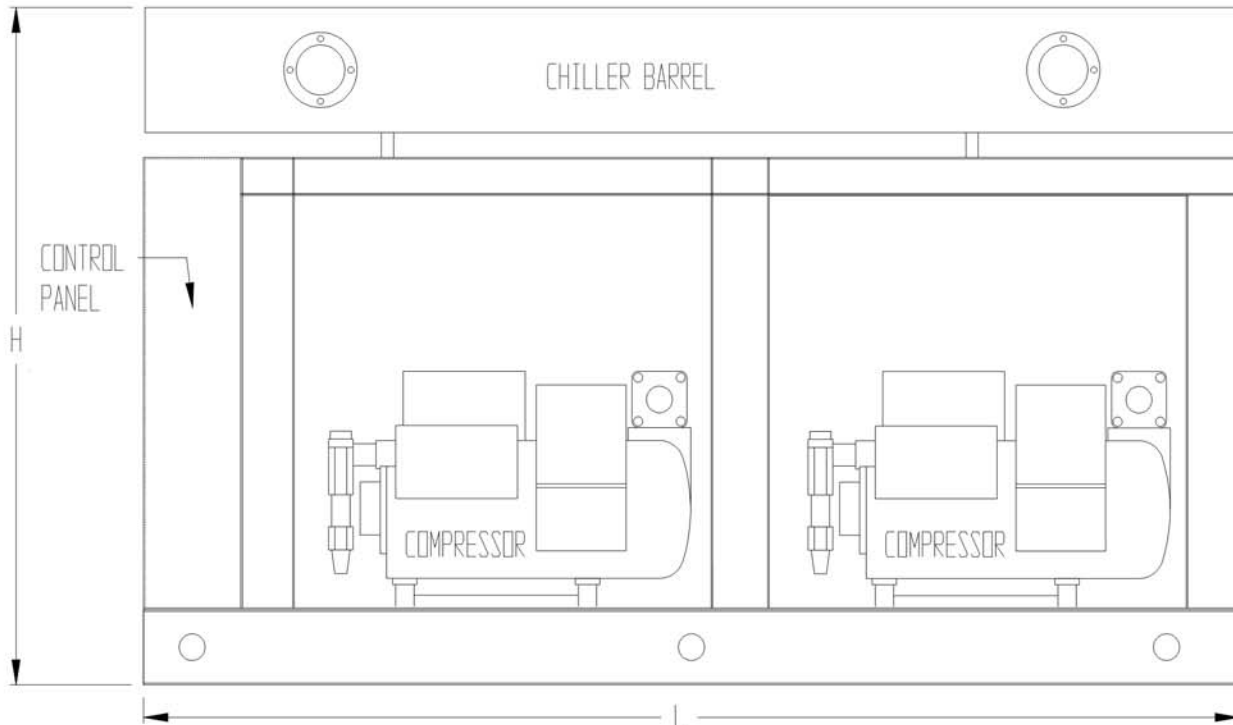
Published nominal capacities based on ARI-590 standard, 54°F entering water, 44°F leaving water, 105°F condensing temperature.
Published evaporator and condenser psi drop is based on a 10°F Δ T of water at nominal conditions.



Dual Circuit Semi-Hermetic Water Cooled Chiller Specifications

Legacy Model	Nominal BTUH	Evaporator		Condenser (ea.)		Length Inches	Width Inches	Height Inches	Compressor			RLA Ea.	LRA Ea.	MCA	Max Fuse	Weight Pounds
		PSI Drop	Conn.	PSI Drop	Conn.				Qty.	HP	Model					
STWC150D2-T3-S STWC150D2-T4-S	236,400	6.6	2.5" FPT	3.2	1.25" FPT	85	34	42	2	7.5	3DA-0750	41.0	215	92.25	125	1260
STWC200D2-T3-S STWC200D2-T4-S	277,200	6.6		4.8						20.0	106	45	60	1380		
STWC240D2-T3-S STWC240D2-T4-S	315,600	5.3		1.7						48.2	275	108.5	150	1480		
STWC300D2-T3-S STWC300D2-T4-S	375,600	7.3		2" MPT						6.4	29.0	138	65.25	90	1820	
STWC400D2-T3-S STWC400D2-T4-S	428,400	3.2	2.5" MPT	4.9	2" FPT	110	60	2	20	4DA-2000	66.0	308	148.5	200	1990	
STWC440D2-T3-S STWC440D2-T4-S	492,000	8.4		2.1					65.6	374	147.6	200	2040			
STWC500D2-T3-S STWC500D2-T4-S	534,000	9.9	3" MPT	2.8	2.5" FPT	120	60	2	25	4DH-2500	82.2	428	185	250	2190	
STWC601D2-T3-S STWC601D2-T4-S	708,000	9.8		4.9					41.1	214	92.48	125	2290			
STWC701D2-T3-S STWC701D2-T4-S	820,800	6	4" MPT	2.4	2.5" FPT	120	60	2	30	6DB-3000	105.0	565	236.3	300	2290	
STWC800D2-T3-S STWC800D2-T4-S	919,200	8.9	4" F	3.4					125.0	594	281.3	400	2600			
STWC1000D2-T3-S STWC1000D2-T4-S	1,107,600	6.4	5" F	4.7	3" FPT	120	60	2	35	6DG-3500	62.5	297	140.6	200	2600	
STWC1200D2-T3-S STWC1200D2-T4-S	1,275,600	8.4		2.9					142.0	594	319.5	450	3000			
									50	8DP-5000	90.0	535	202.5	250	3490	
									60	8DS-6000	224.0	1070	504	700	3920	
											112.0	535	252	350		

Published nominal capacities based on ARI-590 standard, 54°F entering water, 44°F leaving water, 105°F condensing temperature. Published evaporator and condenser psi drop is based on a 10°F Δ T of water at nominal conditions.



Percent Propylene Glycol by Weight	15%	20%	25%	30%	35%	40%	50%
Freezing Point In °F	24°	18°	15°	9°	5°	- 5°	- 30°
Capacity Factor Multiplier*	0.992	0.986	0.972	0.960	0.950	0.928	0.878
Pressure Drop Multiplier	1.04	1.08	1.13	1.21	1.26	1.47	2.79

Percent Ethylene Glycol by Weight	10%	15%	20%	25%	30%	35%	40%
Freezing Point In °F	25°	21°	17°	11°	5°	0°	-10°
Capacity Factor Multiplier*	0.98	0.96	0.95	0.93	0.92	0.91	0.89
Pressure Drop Multiplier	1.08	1.11	1.16	1.21	1.27	1.32	1.38

* At standard ARI 590 conditions: 54°F entering fluid temperature, 44°F leaving

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Due to manufacturer's policy of continuous product improvement, the manufacturer reserves the right to make changes without notice.



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