

WITH
3-SPEED, 24V CONTROL



CW Series Upflow Wall / Closet Fan Coils 2-Pipe Chilled Water - Hot Water (240 - 1160 CFM)



Standard unit shown
(Closet application - Front Return Air)



Unit shown with bottom return air kit
(Closet application - Bottom Return Air)



Unit shown with louvered wall panel
(Recessed wall application)

The **CW** Series fan coil is designed as an upflow indoor air handler with a chilled water coil for cooling. The **CW** can be installed on a closet platform, hung on a closet wall, or recessed in a wall between the studs. All models are 22" wide to allow standard stud spacing for all sizes.

The cabinet is made of galvanized steel and is fully insulated. The condensate pan is sloped to ensure proper drainage. For installation flexibility, drain piping can come from the bottom, front, left, or right side of the cabinet.

The **CW** is equipped with a control board that allows 24V 3-speed fan operation from a 3-speed wall mounted thermostat. Three compatible 3-speed thermostats are available from First Co.: manual changeover (#T420), auto changeover (#T421), and the all new "**Autospeed 24V**" (#T200 and #T201). The **T200/T201 Autospeed 24V** provides maximum comfort and efficiency by *automatically varying the fan speed between High, Medium, and Low speeds*, depending on room temperature and desired thermostat setting. (see P.4 for additional information) Also available with optional 120V control (CW-120 model).

Standard Features:

- 120V motor, 24V 3-speed fan control
- **120/24V 3-speed control board** (see description on Page 4)
- **Electrical service pullout** (not on 277V models)
- Non-corrosive thermoplastic drain pan, sloped for positive drainage
- Separate compartment for drain connections (allows the use of PVC drain piping)
- Drain pan has female primary and secondary fittings
- Easily accessible 1" filter
- Various optional factory installed valve packages
- Coil connections stub out top of unit

Optional Accessories: (see Page 3)

Optional accessories include 3-Speed Wall Thermostats, Wall Panels with Captive Screws (for recessed wall mounting), Condensate Overflow Switch, Closet Hanger Bracket Kit, Bottom Return Air Kit and various Chilled Water Valve Packages.

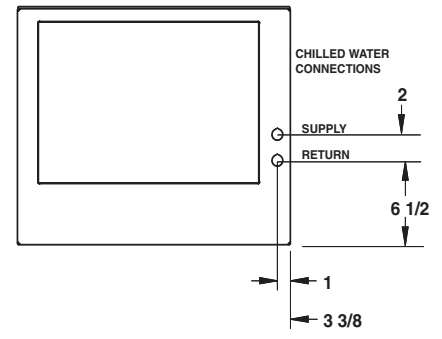
CW models with other motor voltages may be available. (Contact factory)

CW Series

Wall / Closet Fan Coils

COOLING CAPACITY																	
UNIT MODEL	NOMINAL CFM	45 DEGREE ENTERING WATER									42 DEGREE ENTERING WATER						
		GPM	P.D. (Ft. Wtr.)	80F D.B. / 67F W.B.			75F D.B. / 63F W.B.			GPM	P.D. (Ft. Wtr.)	80F D.B. / 67F W.B.			75F D.B. / 63F W.B.		
				TH	SH	TR	TH	SH	TR			TH	SH	TR	TH	SH	TR
4CW	400	1.5	4.3	9.7	8.8	13.0	7.8	7.8	10.4	1.5	4.3	10.6	9.1	14.1	8.6	8.6	11.4
		2.5	10.5	12.0	9.6	9.6	9.2	8.5	7.4	2.5	10.5	13.1	10.0	10.5	10.0	8.8	8.0
		3.5	19.0	13.1	10.0	7.5	10.0	8.8	5.7	3.5	19.0	14.2	10.5	8.1	10.9	9.2	6.2
6CW	600	3.0	5.0	17.3	13.1	11.5	13.2	11.5	8.8	3.5	6.7	20.0	14.1	11.4	15.3	12.3	8.7
		4.0	8.6	19.2	13.8	9.6	14.7	12.1	7.3	4.5	10.7	21.7	14.8	9.6	16.6	12.8	7.4
		5.0	13.0	20.4	14.3	8.2	15.6	12.5	6.2	5.5	15.5	22.8	15.2	8.3	17.4	13.2	6.3
8CW	800	6.5	11.4	23.2	17.1	7.1	17.7	15.0	5.4	6.0	9.8	24.6	17.6	8.2	18.8	15.4	6.3
		7.5	14.8	24.2	17.4	6.5	18.5	15.3	4.9	7.0	13.1	25.8	18.1	7.4	19.7	15.8	5.6
		8.5	18.7	25.0	17.7	5.9	19.1	15.5	4.5	8.0	16.7	26.8	18.4	6.7	20.5	16.1	5.1
10CW	1000	6.5	5.7	29.0	21.6	8.9	22.2	19.0	6.8	6.0	4.6	30.7	22.2	10.2	23.5	19.4	7.8
		8.0	8.2	31.0	22.3	7.8	23.7	19.5	5.9	8.0	8.2	33.8	23.4	8.5	25.8	20.4	6.5
		9.5	11.0	32.5	22.9	6.8	24.8	20.0	5.2	10.0	12.1	35.8	24.1	7.2	27.3	20.9	5.5
12CW	1200	6.0	6.3	33.0	26.1	11.0	25.2	23.2	8.4	5.5	5.4	34.7	26.7	12.6	26.5	23.5	9.6
		7.5	9.5	36.1	27.3	9.6	27.6	24.0	7.4	7.0	8.4	38.3	28.1	10.9	29.3	24.6	8.4
		9.0	13.2	38.5	28.1	8.5	29.4	24.7	6.5	8.5	11.9	41.1	29.2	9.7	31.4	25.5	7.4

HEATING CAPACITY												
UNIT MODEL	NOMINAL CFM	GPM	P.D. (Ft. Wtr.)	HEATING DATA (70° ENTERING AIR)								
				BTUH @ 180 F		LVG AIR @ 160 F		BTUH @ 140 F		LVG AIR @ 120 F		
				BTUH	LVG AIR	BTUH	LVG AIR	BTUH	LVG AIR	BTUH	LVG AIR	
4CW	400	1.0	2.1	26.0	130	21.3	119	16.6	108	11.8	97	
		2.0	7.1	30.2	140	24.7	127	19.2	114	13.7	102	
		3.0	14.5	31.8	144	26.1	130	20.3	117	14.5	104	
6CW	600	1.0	0.7	35.7	125	29.2	115	22.7	105	16.2	95	
		2.0	2.4	44.7	139	36.5	126	28.4	114	20.3	101	
		3.0	5.0	48.4	145	39.6	131	30.8	118	22.0	104	
8CW	800	3.5	3.6	56.8	136	46.5	124	36.1	112	25.8	100	
		5.0	7.0	60.2	140	49.3	127	38.3	114	27.4	102	
		6.5	11.4	62.6	142	51.2	129	39.8	116	28.5	103	
10CW	1000	4.0	2.4	73.0	138	59.7	125	46.4	113	33.2	101	
		6.0	4.9	78.2	142	64.0	129	49.8	116	35.6	103	
		8.0	8.2	81.5	145	66.7	132	51.9	118	37.1	104	
12CW	1200	3.0	1.8	81.5	133	66.7	121	51.9	110	37.0	99	
		4.5	3.7	92.8	142	75.9	129	59.1	116	42.2	103	
		6.0	6.3	97.1	145	79.4	131	61.8	118	44.1	104	

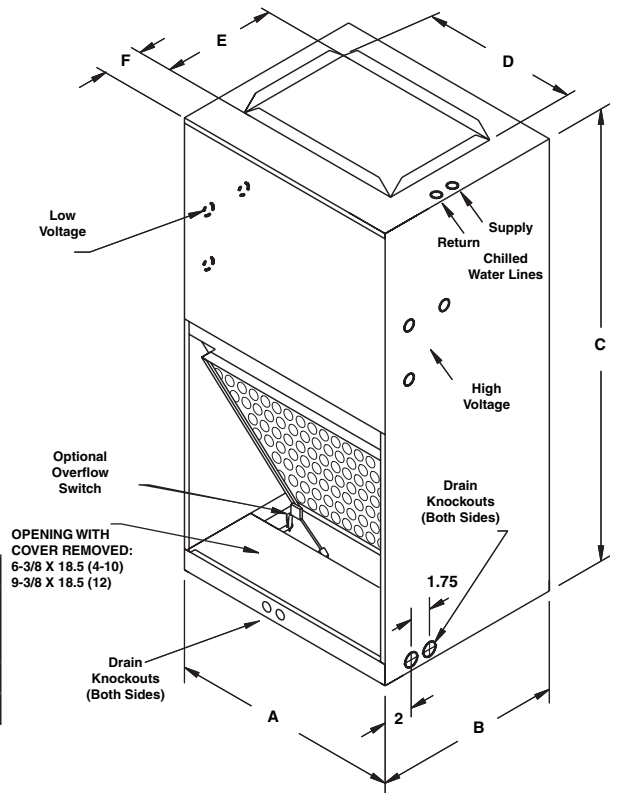


NOTES:
 1. Above capacities are at nominal CFM conditions. Maximum discharge air temperature must not exceed 145° at actual CFM.

BLOWER DATA											
UNIT MODEL	MOTOR H.P. (120V)	AMPS	MOTOR SPEED	CFM VS. EXTERNAL STATIC PRESSURE							
				0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
4CW	1/6	2.1	MED. HIGH	520	500	485	470	450	430	415	---
			MED. LOW	380	370	360	350	340	330	310	---
			LOW	300	290	280	270	260	250	240	---
6CW	1/6	2.1	HIGH	620	615	610	600	585	570	555	---
			MED. HIGH	410	400	390	380	370	360	350	---
			MED. LOW	300	290	280	270	260	250	240	---
8CW	1/6	3.2	HIGH	855	840	820	800	775	750	730	710
			MEDIUM	710	700	685	670	655	640	625	610
			LOW	580	570	560	550	540	530	515	500
10CW	1/4	4.6	HIGH	1075	1050	1025	1000	980	960	930	900
			MEDIUM	875	860	845	830	815	800	780	760
			LOW	705	700	690	680	670	660	645	630
12CW	1/4	3.8	HIGH	-	1160	1130	1100	1070	1040	1010	980
			MED-HIGH	-	1070	1045	1020	995	970	940	910
			MED-LOW	-	1000	975	950	930	910	885	860

PHYSICAL DIMENSIONS								
UNIT MODEL	A	B	C	D	E	F	FILTER SIZE	CHILLED WATER COIL CONNECTIONS
4 - 10CW	22-1/8	15-1/8	40	13	10-1/2	3-5/8	18 X 18	5/8 O.D.
12CW	22-1/8	18-1/8	43	14	13	3-5/8	18 X 24	5/8 O.D.

NOTES:
 1. Coil connections are sweat and stub out top of unit



CW Series

Wall / Closet Fan Coils

OPTIONAL ACCESSORIES (FIELD INSTALLED)			
DESCRIPTION	PART #	DIMENSIONS	
WALL PANEL (1)	9PWUC01L (4-10)	43-3/8 X 25-5/8 (Outside Frame)	40-3/8 X 22-5/8 (Inside Frame)
	9PWUC02L (12)	46-3/8 X 25-5/8 (Outside Frame)	43-3/8 X 22-5/8 (Inside Frame)
HANGER BRKT. SET	90PK3	1-1/2 X 22-1/8	---
RETURN AIR COVER	90PK4 (4-10)	19-13/16 X 22	---
	90PK5 (12)	21-5/8 X 22	---
CONDENSATE OVERFLOW SWITCH	SS3	---	---
WALL THERMOSTAT 3-SPD., MANUAL CHANGEOVER	T420 (120/240/277)	---	---
WALL THERMOSTAT 3-SPD., AUTO CHANGEOVER	T421 (120/240/277)	---	---
24V WALL THERMOSTAT 3-SPD., MANUAL CHANGEOVER (AUTOSPEED 24V)	T200 (24V)	---	---
24V WALL THERMOSTAT 3-SPD., AUTO CHANGEOVER (AUTOSPEED 24V)	T201 (24V)	---	---



T200/T201
"AUTOSPEED 24V"™
THERMOSTAT



Optional wall panel
(Recessed wall application)



T420/T421
THERMOSTAT

OPTIONAL VALVE CLUSTERS (Factory installed)	
PART #	DESCRIPTION
VALVE CLUSTER:	
9VCWNVM	No valves, stub kit only
9VCW2BVM	2 hand valves
9VCW22BM	2-way, valve body, 2 hand valves
9VCW23BM	3-way, valve body, 2 hand valves
POWER HEAD:	
911-111	24V

NOTES:

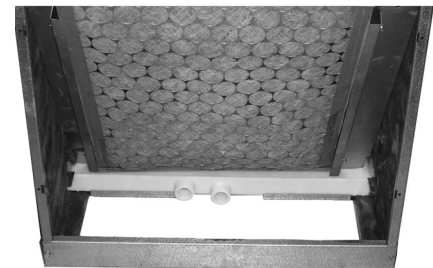
All models are available with or without factory installed valve clusters. Above are "standard" 2-way and 3-way valve clusters. Contact the factory for other options such as circuit setters, strainers, auto-flow valves, etc.



Unit shown with
an optional
valve package



Unit shown with optional bottom return air kit
(#90PK4)



Condensate drain connections
(With drain cover removed)
(Thermoplastic pan shown)

In keeping with its policy of continuous progress and product improvement, First Operations reserves the right to make changes without notice. Maintenance for all First Co. products is available under "Product Maintenance" at www.firstco.com.

The "Autospeed 24V™" Thermostats (Part #'s T200/T201)

AUTOMATIC
FAN SPEED CONTROL

Accurate, Efficient, and Quiet Fan Coil Operation

The new **Autospeed 24V™** thermostat (part's # **T200** and **T201**) provides 24V AC single stage temperature control of 2 pipe and 4 pipe fan coil applications. The **T200/T201** thermostat offers maximum comfort and efficiency by *automatically selecting the appropriate High, Medium, or Low fan speed*, depending on room temperature and thermostat temperature setting. This automatic fan speed control not only brings the room temperature to the desired set point quickly, it maintains the room temperature with the most efficient fan speed selection. Once the desired room temperature is achieved the fan coil operates on low speed for extremely quiet operation. The fan coil **control board** (which is factory installed in all CW units) is a circuit board that provides control of a 3-speed line voltage fan motor. The **control board** allows the thermostat to control the fan motor even though, by itself, the thermostat does not have the amperage capability nor the voltage rating capability to control the fan motor.



(T200 shown with wall plate)

T200/T201 Thermostat Features

- Compatible with 2 pipe and 4 pipe fan coils: Series HBC/PHBC/RHBC/CHBC, MB/MB-HW, HYB/PHYB, and CW/CW-HW/CWE
- Continuous fan operation
- **T200**-Manual Heat / Cool changeover switch
- **T201**-Automatic Heat / Cool changeover switch
- Large LED digital display
- Allows less expensive 24V control wiring from the fan coil to the thermostat, rather than larger, more expensive line voltage wiring.
- 3-speed fan operation, with speed indicator lights
- Fan speed determination:
 - If room temperature is 4 degrees (F.) off thermostat set point, fan will operate on High speed.
 - If 3 degrees off set point, fan will operate on Medium speed.
 - If within 2 degrees of set point, fan will operate on Low speed
- One-hour Auto override - Fan speed defaults to "Auto" mode after 1 hour if the user manually changes it to a particular fan speed.
- Temperature set range: 64-88 degrees F.
- Adjustable high and low temperature set points (low set point option is 67 deg. F., high set point option is 84 deg. F.)
- Selectable Fahrenheit / Centigrade display
- Power switch turns system off/on
- Requires 7-wire 24V thermostat wire
- No batteries required
- Set points are permanently retained in memory in case of power interruption
- Simple operation
- Mercury Free
- Wall plate included