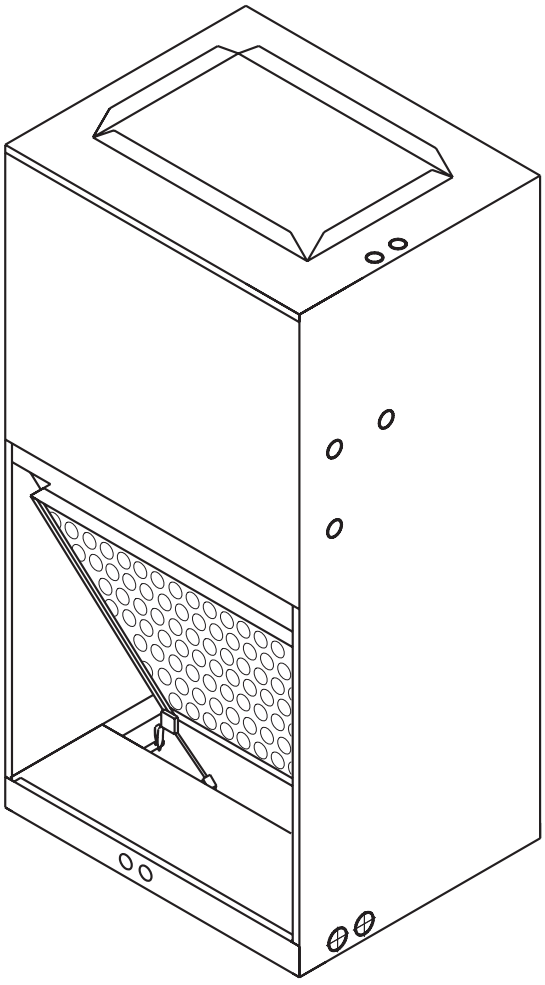
airsideproducts

Product Specifications
Upflow Wall / Closet Fan Coils
4-Pipe Chilled Water / Hot Water

YCW-HW

190 THROUGH 1,085 CFM



AIRSIDE PRODUCTS - P.O. Box 270969 - Dallas, Texas 75227 - Ph. (214) 388-5751 - Fax (214) 388-2255

Product Specifications
Upflow Wall / Closet Fan Coils
4-Pipe Chilled Water / Hot Water

PRODUCT INFO

The Y**CW-HW** Series fan coil is designed as an upflow indoor air handler with a chilled water coil for cooling and hot water coil for heating.

The Y**CW-HW** 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 Y**CW-HW** 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 ASP: 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)

Standard Features

- 120V motor, 24V 3-speed fan control
- **120/24V 3-speed control board** (see description below)
- Non-corrosive thermoplastic drain pan, sloped for posi tive 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 in stalled valve packages
- Coil connections stub out top of unit

Optional Accessories: (see Page 4)

*** Accessible HW Connections**

*** Unique New Feature** - In recessed wall applications utilizing the optional wall panel (**#9PWUC03L**), the hot water coil can be removed *without modifications to the drywall.* To allow this feature, the top of the YCW-HW cabinet is notched for coil removal and the wall panel is 3" taller than the cabinet.

YCW-HW models with other motor voltages may be available. (Contact factory)

The *"Autospeed* 24V ™ " Control Package

All YCW/YCW-HW/YCWE fan coils are now available with the "***Autospeed*** **24V** ™ " control package option.

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** is a circuit board that provides control of a 3-speed line voltage (120, 208-240, or 277V), (50 or 60 cycle) fan motor. The control board allows the thermostat to control the fan motor even though, by itself, the thermostat does not have the current or voltage rating capability to control the fan motor.

With the "***Autospeed*** **24V** ™ " option, a "Controller Enclosure" is factory installed on each fan coil, which includes the control board, transformer, and service switch. Controller enclosure for 120V line (supply) voltage applications is part # **943-1D**. Contact the factory for controllers for other line voltages.

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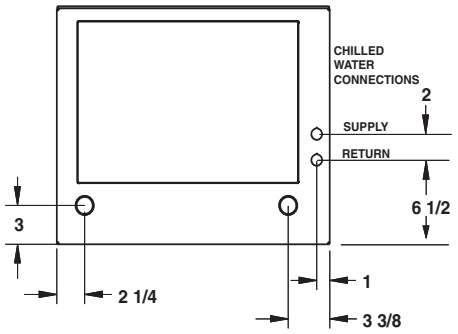
COOLING CAPACITY

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	GPM (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
4YCW-HW	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
6YCW-HW	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
8YCW-HW	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
10YCW-HW	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
12YCW-HW	1200	6.0	6.3	33.0	26.1	11.0	25.2	23.1	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

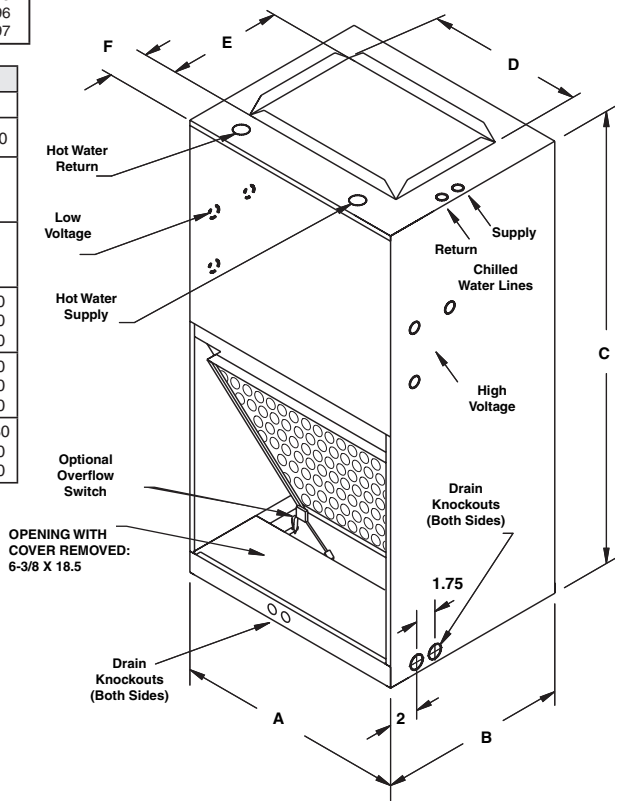
HEATING CAPACITY

UNIT MODEL	NOMINAL CFM	GPM	P.D. (Ft. Wtr.)	HEATING DATA (70° ENTERING AIR)							
				BTUH @ 180 F	LVG AIR F	BTUH @ 160 F	LVG AIR F	BTUH @ 140 F	LVG AIR F	BTUH @ 120 F	LVG AIR F
4YCW-HW	400	2.0	1.3	30.0	139	24.6	127	19.1	114	13.6	102
		4.0	4.5	33.3	147	27.3	133	21.2	119	15.1	105
		6.0	9.6	34.9	151	28.5	136	22.2	121	15.9	107
6YCW-HW	600	2.0	1.3	38.5	129	31.5	119	24.5	108	17.5	97
		4.0	4.5	43.4	137	35.5	125	27.6	113	19.7	100
		6.0	9.6	45.7	141	37.4	128	29.1	115	20.8	102
8YCW-HW	800	4.0	4.5	52.0	130	42.6	119	33.1	108	23.6	97
		5.5	8.0	54.5	133	44.6	122	34.7	110	24.8	99
		7.0	12.5	55.9	135	45.8	123	35.6	111	25.4	99
10YCW-HW	1000	4.0	4.5	59.4	125	48.6	115	37.8	105	27.0	95
		5.5	8.0	62.5	128	51.2	117	39.8	107	28.4	96
		7.0	12.5	64.3	130	52.6	119	40.9	108	29.2	97
12YCW-HW	1200	4.0	4.5	70.2	124	57.4	114	44.6	104	31.9	95
		5.5	8.2	73.7	127	60.3	116	46.9	106	33.5	96
		7.0	12.9	75.8	128	62.0	117	48.2	107	34.4	97



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
4YCW-HW	1/5	1.1	HIGH	485	470	455	440	410	380	350	---
			MEDIUM	395	380	365	350	325	300	275	---
			LOW	300	280	265	250	230	210	190	---
6YCW-HW	1/4	2.9	HIGH	730	710	685	660	640	620	595	---
			MEDIUM	600	580	565	550	530	510	490	---
			LOW	465	450	435	420	405	390	375	---
8YCW-HW	1/3	5.8	HIGH	890	870	845	820	800	780	760	740
			MED. LOW	715	700	685	670	655	640	625	610
			LOW	575	560	550	540	525	510	500	490
10YCW-HW	1/2	8.0	HIGH	1085	1060	1070	1020	995	970	950	930
			MED. LOW	910	890	870	850	835	820	800	780
			LOW	745	730	715	700	690	680	665	650
12YCW-HW	1/2	7.0	HIGH	1190	1170	1150	1130	1105	1080	1055	1030
			MED. LOW	955	940	930	920	905	890	875	860
			LOW	765	760	750	740	735	730	720	710



PHYSICAL DIMENSIONS

UNIT MODEL	A	B	C	D	E	F	FILTER SIZE	CW AND HW COIL CONNECTIONS
4 - 8YCW-HW	22-1/8	18-1/8	43	18	12-1/2	4-3/4	18 X 18	5/8 O.D.
10YCW-HW	22-1/8	18-1/8	43	18	12-1/2	4-3/4	18 X 20	5/8 O.D.
12YCW-HW	22-1/8	21/1/8	43	18	15-1/2	4-3/4	18 X 20	5/8 O.D.

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

ACCESSORIES

OPTIONAL ACCESSORIES (FIELD INSTALLED)			
DESCRIPTION	**PART #**	**DIMENSIONS**	
WALL PANEL (1)	**9PWUC03L**	49-3/8 X 25-5/8 (Outside Frame)	46-3/8 X 22-5/8 (Inside Frame)
HANGER BRKT. SET	**90PK3**	1-1/2 X 22-1/8	---
RETURN AIR COVER	**90PK5**	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)	---	---

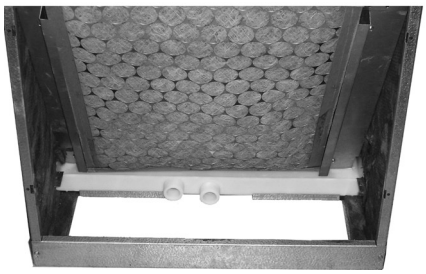
T200/T201
"*AUTOSPEED* 24V™"
THERMOSTAT

Optional wall panel
(Recessed wall application)

T420 /T421
THERMOSTAT

OPTIONAL VALVE CLUSTERS: (Factory Installed)	
PART #	**DESCRIPTION**
VALVE CLUSTER:	
Heating Coil:	
HW-2WM	2-way, valve body, 2 hand valves
HW-3WM	3-way, valve body, 2 hand valves
Cooling Coil:	
9VCWH2BVM	2 hand valves
9VCWH22BM	2-way, valve body, 2 hand valves
9VCWH23BM	3-way, valve body, 2 hand valves
9VCWHNVM	Stub-out lines only
POWER HEAD: (one required for each valve cluster)	
911-111	24V

NOTES:
All chilled water coils 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.



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

Unit shown with optional bottom return air kit
(**#90PK5**)

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

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GUIDE SPECIFICATIONS

Contractor shall furnish and install high quality air handling units as indicated on plans. Sizes and capacities shall be shown in the Unit Schedule included on the drawings. All units shall be the products of Air Products (ASP) series fan coils and listed by UL or ETLC (listed in accordance with UL 1995.) Units shall be designed, tested and manufactured in accordance with ARI-410, 430, 440 and 350.

Cabinets shall be fabricated of lock forming quality (min) steel. External and internal parts are to be made with heavy gauge galvanized steel. Large access panels shall be provided to permit full access to internal components. The structural integrity of the cabinets shall remain unaffected by the removal of any or all access panels.

Insulation shall be blanket-type made from glass fibers bonded with a thermosetting resin. Insulation shall be one and-one-half pound density providing effective acoustical and thermal control, fire safety, and resistance to air erosion. This insulation must meet the requirements of ASTM C 1071, ASTM G 21, ASTM G22, NFPA 90A and UL-181.

Coils shall be of the staggered tube type constructed with seamless copper tubes and headers, and deep corrugated aluminum fins with straight edges. Manufacturer shall supply full depth collars, drawn in the fin stock to provide accurate control of fin spacing and completely cover the copper tubes to lengthen coil life. The tubes are to be mechanically expanded into the fins for a permanent primary to secondary surface bond, assuring maximum heat transfer efficiency. The coils are to be tested at 350 PSI for operation at 300 PSI gauge. The coils provided shall be suitable for the application and comply with the required performance as described in the Unit Schedule.

Drain pans shall be three - way positive drainage and shall be fabricated UL94-5, rigid PVC material.

Fan Wheels shall be double width, double inlet, forward curved, centrifugal type. They shall be statically and dynamically balanced for smooth, quiet operation. The housing shall be constructed of heavy gauge steel with die-formed inlet cones.

Motors (Direct Drive)
Standard motors are PSC, permanently lubricated type with internal thermal overload protection and are mounted with rubber isolation bushings. Blower wheels are DWDI (double width, double inlet) centrifugal, forward curved, and dynamically balanced.

Filters are to be disposable type. They shall be center loading with an 85% arrestance efficiency. The filters shall be included in the units as an integral part of the cabinet with easy access provided by the manufacturer.

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